

# ECONOMICS UPSIDE-DOWN: LOW-PRICE GUARANTEES AS MECHANISMS FOR FACILITATING TACIT COLLUSION

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## INTRODUCTION

In a recent newspaper advertisement, Circuit City, a regional consumer electronics retail chain prominent in the northeastern United States, offered potential customers the following low-price guarantee ("LPG"):

For every product we sell, we'll beat any legitimate price from a local store stocking the same new item in a factory-sealed box. Even after your purchase, if you find a lower price within 30 days, including our own sale prices, we'll refund 110% of the difference.<sup>1</sup>

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Many of Circuit City's competitors and other consumer electronics retailers throughout the Northeast have offered similar guarantees.<sup>2</sup>

Although at first glance these LPGs might appear to be a simple marketing ploy or even a boon to consumers, in reality they might be used as mechanisms for facilitating tacit collusion.<sup>3</sup> In fact,

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<sup>1</sup> PHILA. INQUIRER, Nov. 27, 1992, at B22 (Circuit City advertisement).

<sup>2</sup> See N.Y. TIMES, Dec. 15, 1992, at A12-13 (Sixth Avenue Electronics advertisement) (describing a "Best Price Plus" policy providing customers who bring in a competitor's ad offering a lower price with a free extended warranty for their purchases) [hereinafter Sixth Avenue Electronics]; N.Y. TIMES, Dec. 11, 1992, at A20-21 (Wiz Home Entertainment Centers advertisement) (stating "[b]ring in any of our competitor's [sic] ads and we will beat the price plus 10% of the difference in price or it's yours free!") [hereinafter Wiz]; PHILA. INQUIRER, Dec. 6, 1992, advertising insert (American Appliance advertisement) (stating a "double the difference" price guarantee); PHILA. INQUIRER, Nov. 29, 1992, at B8 (Silo advertisement) (noting that "[s]hould you purchase something from us, then find it for less in the next 30 days, we'll gladly give you the difference - plus 10%").

<sup>3</sup> See *infra* notes 51-54 and accompanying text (defining tacit collusion and distinguishing it from overt collusion).

LPGs provide a particularly potent instrument for implementing tacit collusion and offer little offsetting economic benefit. In light of this analysis, this Comment explains why courts, scholars, and antitrust enforcement officials should scrutinize the use of LPGs to ensure that they are not utilized for collusive purposes. The Comment then evaluates the possibility of prosecuting attempts to facilitate tacit collusion via LPGs under current antitrust laws. Finally, the Comment concludes by calling on legislators, regulators, and courts to modify and clarify existing antitrust laws to correct defects in applying existing statutory prohibitions on collusion to cases involving LPGs.

## I. LOW-PRICE GUARANTEES AND THE CONSUMER RETAILING MARKET

### A. *Definition of a Low-Price Guarantee*

For the purposes of this Comment, a low-price guarantee is defined as a promise by a firm to refund to a customer an amount in excess of 100% of the difference between the firm's price and the prices charged by the firm's competitors. As a result, policies that merely guarantee that a firm's prices are the lowest available, also known as "meeting-the-competition clauses,"<sup>4</sup> are not considered LPGs in the analysis which follows. While such guaranteed lowest price policies might have anticompetitive effects,<sup>5</sup> they are less effective at facilitating tacit collusion than policies which refund more than 100% of the price difference.<sup>6</sup>

Furthermore, some firms offer "modified" LPGs under which they offer to match any competitor's price and will give any customer providing evidence of a lower price a non-cash premium. The pricing policy followed by Sixth Avenue Electronics, for

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<sup>4</sup> See *infra* notes 70-78 and accompanying text.

<sup>5</sup> See Steven C. Salop, *Practices that (Credibly) Facilitate Oligopoly Co-ordination*, in *NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE* 265, 279-82 (Joseph E. Stiglitz & G. Frank Mathewson eds., 1986) (defining meeting-the-competition clauses and explaining their collusive applications when used individually or in concert with other pricing policies); Donald S. Clark, *Price-Fixing Without Collusion: An Antitrust Analysis of Facilitating Practices After Ethyl Corp.*, 1983 WIS. L. REV. 887, 934-35 (discussing meet-or-release clauses, which are very similar to meeting-the-competition clauses).

<sup>6</sup> This is true because the "signal" sent by LPG pricing policies is "stronger" than that sent by guaranteed lowest price policies. See *infra* notes 102-07 and accompanying text.

example, consists of an offer to match competitors' prices and to provide an extended warranty at no extra charge to any customer who brings in a competitor's ad with a lower price for the product purchased.<sup>7</sup> Although this and other similar pricing policies qualify as LPGs given the definition advanced above, they operate in a slightly different manner from "pure" LPGs in which the guarantee premium is a cash amount directly related to the difference between the guarantor's and a competitor's prices. In particular, if the non-cash premium is not considered sufficiently valuable by consumers, they might decide to forego enforcing the guarantee and instead might merely purchase from the retailer with the lowest price regardless of any guarantee. As explained below,<sup>8</sup> the effectiveness of LPGs as a mechanism for facilitating tacit collusion depends, in part, on their ability to signal prices. If LPGs are not utilized by consumers, however, then the signals needed to sustain a collusive outcome may be weakened. While the discussion and examples provided in this Comment focus on pure LPGs, the conclusions drawn can easily be extended to modified LPGs if this change in signal strength is taken into account.

### B. *The Example of Consumer Electronics Retailing*

While many parts of this Comment refer to the use of LPGs by consumer electronics retailers, the manner in which LPGs can be used to facilitate tacit collusion is in no way limited to this narrow industry. In fact, the consumer electronics retailing industry lacks many of the features most conducive to tacit collusion,<sup>9</sup> making it a less than ideal example. The consumer electronics context is discussed in this Comment, however, because LPGs are most visible in this environment and because retailing provides a clear paradigm for explaining the operation of LPGs. In addition, while the consumer electronics retailing industry does lack some of the properties which encourage the use of tacit collusion, as a theoretic-

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<sup>7</sup> See Sixth Avenue Electronics, *supra* note 2, at A12-13.

<sup>8</sup> See *infra* notes 102-07 and accompanying text.

<sup>9</sup> See *infra* part IV.C.2. (detailing industry characteristics that facilitate collusion). In particular, the consumer electronics retailing industry seems susceptible to vertical profit dissipation. See *infra* note 141 and accompanying text (defining and explaining the relevance of vertical profit dissipation). In addition, the absolute value of the price elasticity of demand for consumer electronics may exceed unity, meaning that an increase in prices will decrease total revenue in the industry. See *infra* notes 133-35 and accompanying text (defining and explaining the relevance of demand elasticities).

cal and practical matter LPGs could still be used to establish and enforce a silent conspiracy in related industries.

LPGs are not unique to the consumer electronics industry. In fact, some sporting goods stores have recently advertised LPGs.<sup>10</sup> Furthermore, while LPGs seem most prevalent in the retailing context, there is no reason why they might not be used at the wholesale level or in other transactions between businesses. In essence, the collusive potential of LPGs extends to all industries.

## II. ECONOMIC BACKGROUND

### A. *Competitive Equilibrium*

Although a detailed discussion of the evils of collusion is beyond the scope of this Comment,<sup>11</sup> in order to understand the harm caused by using LPGs to facilitate tacit collusion one should have a basic understanding of the benefits of competition and the costs of monopoly.

American economic policy is premised on the relative efficiency of free-market policies. This position follows from the belief that the actual markets in the American economy contain many of the elements required for perfect competition. Under the traditional competitive market model, a large number of small, identical, and independent firms produce a single homogeneous product for a large number of independent consumers.<sup>12</sup> In addition, transaction costs, externalities, and barriers to entry are assumed to be nonexistent.<sup>13</sup> While no one actually believes that these conditions exist in the real world, American antitrust and economic policies hold up the competitive model as an ideal, a goal which the law should help to realize. Under these conditions, firms are price takers: they can sell as much as they can produce at the market

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<sup>10</sup> See PHILA. INQUIRER, Dec. 13, 1992, advertising insert (Modell's Sporting Goods) ("We Will Beat Any Ad . . . Any Day . . . And Refund 25% Of The Difference!") (ellipses in original).

<sup>11</sup> RICHARD G. LIPSEY ET AL., *ECONOMICS* 224-315 (9th ed. 1990), and CAMPBELL R. MCCONNELL, *ECONOMICS* 543-629 (10th ed. 1987), provide particularly clear explanations of market structure.

<sup>12</sup> See LIPSEY ET AL., *supra* note 11, at 225-26; MCCONNELL, *supra* note 11, at 544-45.

<sup>13</sup> See LIPSEY ET AL., *supra* note 11, at 227; MCCONNELL, *supra* note 11, at 545, 569-70.

price, but they are unable to influence the market price by changing their output.<sup>14</sup>

In a competitive environment, the market price moves to the level required to equilibrate supply and demand. The equilibrium which results from this process has several favorable properties. First, the economy is characterized by productive efficiency.<sup>15</sup> That is, each unit of output produced at the equilibrium will be produced in the least costly manner possible.<sup>16</sup> Second, the equilibrium will be allocatively efficient; the product mix produced by firms will correspond to that most desired by consumers.<sup>17</sup> Allocative efficiency results because the profit-maximizing firms will produce up to the point where the marginal cost and marginal revenue of producing one additional unit of output are equal.<sup>18</sup> Since, by assumption, there are no externalities, the marginal cost of production for each firm reflects the marginal cost of production to society. In addition, since firms are price takers, the marginal revenue of producing another unit must be equal to the market price. As a result, because marginal costs are equal to marginal revenue at equilibrium, price will be equal to marginal cost.<sup>19</sup> Therefore, the price of a unit of output will reflect the cost to society of producing the good. This is why competitive economies are allocatively efficient.<sup>20</sup> Note that this allocative efficiency occurs as the result of businesses and consumers each seeking to maximize their own self-interests; no social planning is necessary to maximize society's welfare.<sup>21</sup>

One other feature of competitive equilibria is worthy of note. At any stable, long-term competitive equilibrium, the industry must be making zero economic profits<sup>22</sup> because there are no barriers

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<sup>14</sup> See LIPSEY ET AL., *supra* note 11, at 226; MCCONNELL, *supra* note 11, at 545.

<sup>15</sup> See MCCONNELL, *supra* note 11, at 566.

<sup>16</sup> See *id.*

<sup>17</sup> See *id.*

<sup>18</sup> See LIPSEY ET AL., *supra* note 11, at 230; MCCONNELL, *supra* note 11, at 552.

<sup>19</sup> That is, since price is always equal to marginal revenue ( $p = mr$ ), and since marginal cost equals marginal revenue in equilibrium ( $mc = mr$ ), then by transitivity, price is equal to marginal cost in equilibrium ( $p = mc$ ).

<sup>20</sup> See MCCONNELL, *supra* note 11, at 566-67. The fact that competitive equilibrium maximizes society's welfare is sometimes called the "First Theorem of Welfare Economics." See HAL R. VARIAN, MICROECONOMIC ANALYSIS 200 (2d ed. 1984) (using "Walrasian equilibrium" to refer to competitive equilibrium). Other texts refer to it as the "Theorem of the Invisible Hand" in deference to Adam Smith. See ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 44 (1988).

<sup>21</sup> See MCCONNELL, *supra* note 11, at 568.

<sup>22</sup> Economic profit is defined as "[t]he difference between the revenues received

to entering the industry. Thus, if an industry is profitable, new firms will join it, increasing industry output and pushing down prices until no economic profits remain.<sup>23</sup>

### B. *The Harm of Monopoly*

While the welfare-maximizing properties associated with perfect competition are attractive, in reality the strong assumptions demanded of the competitive model often are not present.<sup>24</sup> The competitive model, for example, was premised on the presence of a large number of firms. In some markets, however, there may be only one firm, a monopoly. In this case, the monopolist will not be a price taker; it will be able to influence the market price by varying its output.<sup>25</sup> In fact, the monopolist will realize that adding an additional unit of output decreases the market price for all units sold.<sup>26</sup> As a result, the marginal revenue gained from producing one more unit of output is less than the market price.<sup>27</sup> Therefore, when the monopolist maximizes its profits by equating marginal revenue with marginal cost, the equilibrium price will be above marginal cost. In essence, there is underprovision of output in a monopolized market because the benefits to society gained by extra output exceed the cost of production.<sup>28</sup>

While in the short run a monopolist will earn positive economic profits, without barriers preventing new firms from entering the industry the monopolist's long-term fate is identical to that of the competitive industry. Other firms will seek to earn the positive economic profits found in the monopolized industry and prices will

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from the sale of output and the opportunity cost of the inputs used to make the output." LIPSEY ET AL., *supra* note 11, at 960. Note that this differs from the definition of profit used by accountants. *See id.* at 184-88. Given the assumption that all firms are identical, this means that no firm is making economic profit.

<sup>23</sup> *See id.* at 234.

<sup>24</sup> Although most economists believe that monopolies are harmful, a distinct minority argues that the benefits of monopolization often exceed the costs. *See* JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 106 (3d ed. 1950) (arguing that monopoly profits provide a strong incentive for technological progress); *see also* JOHN KENNETH GALBRAITH, AMERICAN CAPITALISM 86-88 (1956) (suggesting that oligopolies provide the most fertile environment for inducing technical change since firms in oligopolistic industries have both the money and incentive to invest in research and development).

<sup>25</sup> *See* LIPSEY ET AL., *supra* note 11, at 246 (noting that the monopolist faces a trade-off between price and quantity).

<sup>26</sup> *See id.* at 247.

<sup>27</sup> *See id.*

<sup>28</sup> *See id.* at 295.

fall until economic profits drop to zero, terminating the incentive for new entry.<sup>29</sup> As a result, the successful monopolist must be able to prevent entry into its industry. The monopolist might, for example, possess a patent which entitles it to prohibit other firms from producing similar products.<sup>30</sup> Alternatively, other statutory restrictions might forbid entry.<sup>31</sup>

Most typically, however, monopoly status persists because the good's production process is characterized by economies of scale.<sup>32</sup> Monopolies of this type, often called "natural monopolies," are able to produce at very low per-unit costs by reaping the benefits of economies of scale. In this environment, other firms will not enter the industry because they could not achieve the large sales needed to justify the massive output required to benefit from the economies of scale.<sup>33</sup> In fact, natural monopolies provide an efficiency argument for allowing one firm to produce all output, since doing so ensures that the cost of production is minimized.<sup>34</sup> This is why many public utilities are permitted to exist as monopolies. They are then regulated to prevent them from charging the prices associated with unbridled monopolists.<sup>35</sup> In the absence of such regulation, however, a monopolist who possesses a large cost advantage over its potential competitors will be able to deter entry and earn positive economic profits even in the long run. This is because the monopolist will be able to use "predatory pricing" policies.<sup>36</sup> Pursuant to such policies, the instant a new entrant

<sup>29</sup> See *id.* at 250.

<sup>30</sup> See COOTER & ULEN, *supra* note 20, at 38. For a detailed economic evaluation of the patent system, see F.M. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 439-58 (2d ed. 1980).

<sup>31</sup> See COOTER & ULEN, *supra* note 20, at 38 (noting that the Civil Aeronautics Board refused to allow airlines to add service to some major passenger routes until the mid-1970s).

<sup>32</sup> See *id.*; LIPSEY ET AL., *supra* note 11, at 250 (discussing natural monopolies). Economies of scale refer to the reduction of costs per unit of output resulting from an increase in output. See *id.* at 960.

<sup>33</sup> See LIPSEY ET AL., *supra* note 11, at 250.

<sup>34</sup> See COOTER & ULEN, *supra* note 20, at 38.

<sup>35</sup> See LIPSEY ET AL., *supra* note 11, at 305, 307-08 (discussing public utility regulation of natural monopolies).

<sup>36</sup> For detailed discussions of the legality of predatory pricing and proposed legal rules to combat it, see Phillip Areeda & Donald Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697 (1975); Oliver E. Williamson, *Predatory Pricing: A Strategic And Welfare Analysis*, 87 YALE L.J. 284 (1977); see also 3 PHILLIP AREEDA & DONALD F. TURNER, *ANTITRUST LAW* ¶ 711 (1978) (discussing various facets of predatory pricing). Some scholars refer to predatory pricing as "limit pricing." See SCHERER, *supra* note 30, at 233-36; Salop, *supra* note 5,

attempts to join the industry, the monopolist will cut prices to a level where the new entrant realizes unsustainable losses.<sup>37</sup> In fact, a credible threat to cut prices might be sufficient to deter entry by new firms.<sup>38</sup> Alternatively, a monopolist might maintain its market share through heavy advertising or brand recognition.<sup>39</sup> Although preventing other firms from entering an industry is difficult, a monopolist that accomplishes this goal is rewarded with large economic profits.

### C. Cartel Theory

Just as a single firm that dominates an industry might attempt to restrict output in an effort to raise prices and increase profits, a group of firms can form a cartel with the same objective. Firms seeking to form a cartel to raise prices above their competitive levels face three challenges.<sup>40</sup> First, they must create a consensus within the cartel as to the target price. Second, they must establish a course of action to move prices from their competitive levels to the higher target price. Third, they must maintain prices at the target level, which requires, among other things, deterring entry.

Although the brevity of this list of challenges might suggest that forming a collusive cartel is easy, in reality accomplishing any one

at 282-83.

<sup>37</sup> See LIPSEY ET AL., *supra* note 11, at 250.

<sup>38</sup> See *id.*; Salop, *supra* note 5, at 282-83 (describing the Bain/Sylos-Labini model of limit pricing as a deterrent to entry); see also SCHERER, *supra* note 30, at 336-37 (1980) (noting that Standard Oil's threat of renewed price warfare probably deterred some potential entrants from joining the petroleum refining industry in the late 1800s).

<sup>39</sup> See SCHERER, *supra* note 30, at 381 ("[A]dvertising and other forms of image differentiation can confer monopoly power upon the firms using them."). Claims that a firm has gained a monopolistic advantage through advertising and brand recognition have actually been litigated. See *id.* at 381-82; see, e.g., *Borden, Inc. v. FTC*, 674 F.2d 498, 511 (6th Cir. 1982) (discussing the monopolistic advantage of Borden's RealLemon brand reconstituted lemon juice that allowed it to capture 80% of the reconstituted lemon juice market despite a price 30% higher than its closest competitor).

<sup>40</sup> See Salop, *supra* note 5, at 266. Scholars characterize the challenges faced by cartels in different ways. See, e.g., Ian Ayres, *How Cartels Punish: A Structural Theory of Self-Enforcing Collusion*, 87 COLUM. L. REV. 295, 296 (1987) (suggesting that price and output coordination requires three steps: agreeing, detecting breaches of the agreement, and punishing breaches); Clark, *supra* note 5, at 891 (listing two steps: reaching a consensus and then enforcing it); George A. Hay, *Oligopoly, Shared Monopoly, and Antitrust Law*, 67 CORNELL L. REV. 439, 445 (1982) (listing two steps: establishing a consensus and promoting "mutual confidence that there will be adherence to these decisions").



of the three tasks is extremely difficult. Overcoming all three challenges in concert is a daunting objective. This is particularly true since any agreements made in an effort to collude cannot be enforced in a court of law since collusion is illegal.<sup>41</sup> In fact, collusion is so difficult to achieve that even legal cartels have trouble maintaining collusive outcomes.

The Organization of Petroleum Exporting Countries (OPEC) provides a concise case study.<sup>42</sup> In 1973, OPEC members agreed upon quotas for oil output. The cartel then restricted output in an effort to raise prices and profits. Though this effort was initially successful, after several years the increased profits in the industry attracted new entrants from non-OPEC countries. Furthermore, consumers adapted to higher oil prices by switching to smaller cars and adding more effective insulation to homes heated by oil furnaces. Researchers quickened development of solar and geothermal power to provide alternative sources of energy. Finally, OPEC members began to violate their quotas as each nation abandoned the cartel's goals to maximize its own revenue. By 1986 the cartel neared total collapse, and the inflation-adjusted price of oil fell to its pre-collusive levels.

As the OPEC example illustrates, each of the three tasks required to establish an effective cartel provides an onerous challenge. Certain industry features may further complicate these chores. Cartel members might have difficulty reaching a consensus if the industry has a large number of firms, the firms are heterogeneous,<sup>43</sup> the product specifications vary within the industry,<sup>44</sup> or

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<sup>41</sup> Legal prohibitions of collusion are discussed *infra* part V.

<sup>42</sup> This description of the decline of OPEC is a paraphrase of LIPSEY ET AL., *supra* note 11, at 275-76. See also MCCONNELL, *supra* note 11, at 629 (offering a similar portrayal).

<sup>43</sup> The greater the number of firms, the more communication is necessary to establish a cartel. This is especially true if each firm has a small share of the market. In a more concentrated industry, a cartel comprised of relatively few firms with a large share of the market may be successful. See SCHERER, *supra* note 30, at 199-200 (noting that the number and size of firms in a market influences coordination problems); Clark, *supra* note 5, at 895 (noting that developing a consensus becomes more difficult as the number of firms increases); Hay, *supra* note 40, at 447 ("The larger the number of firms and the greater their variance in size, the more likely that nontrivial cost differences among firms will exist, thereby complicating the problem of calculating the optimal industry price.").

<sup>44</sup> "When products are heterogeneously differentiated, the terms of rivalry become multidimensional, and the coordination problem grows in complexity by leaps and bounds." SCHERER, *supra* note 30, at 200; see *id.* at 200-05; Clark, *supra* note 5, at 896 (noting that "if consumers perceive differences in product quality, then price

the industry is characterized by nonprice competition.<sup>45</sup> This last factor is particularly important. In most industries, price is only one of many factors considered by customers. Firms might also compete on quality, service, level of advertising, or other factors. This complicates the effort to reach a consensus because the cartel members must forge an agreement that takes all of these factors into account.

The cartel's task of raising prices to a collusive level is also difficult. In many industries, firms agree to long-term contracts that fix prices and promise to supply certain quantities of output. Reneging on these commitments in order to join a cartel would expose a firm to legal liability. In addition, transactions in some industries occur infrequently, so any move toward super-competitive prices would take a long time. This might foster within the cartel the belief that the agreed upon consensus is being violated.<sup>46</sup>

In the event that the first two obstacles to collusion are overcome, the third task—maintaining the cartel—presents the greatest challenge. The cartel's initial success at raising profits will attract new entrants. Similarly, the increase in prices creates the incentive for the development of substitutes for the cartelized product. The greatest threat to the cartel's stability, however, comes from within. Once the cartel has increased prices beyond their competitive level by reducing output, each firm will have an incentive to violate its quota.<sup>47</sup> Although unanimous adherence to the collusive consensus might maximize the industry's profits, any given member of the cartel might maximize its individual profits by cutting prices and increasing output if the other firms in the cartel continue to play their roles in the collusive equilibrium.<sup>48</sup>

differentials may be needed to produce a stable market equilibrium"); Hay, *supra* note 40, at 448-50 (noting that multiple prices might be needed if the products are differentiated).

<sup>45</sup> "The tendency toward joint maximization of profits is greater when nonprice rivalry is absent or limited." LIPSEY ET AL., *supra* note 11, at 277 (emphasis omitted); cf. MCCONNELL, *supra* note 11, at 622-23 (suggesting that price collusion is often accompanied by nonprice competition).

<sup>46</sup> Cf. Hay, *supra* note 40, at 450 (noting that in industries with few sales per year, each of which accounts for a sizeable portion of annual income, there will be greater incentive to cheat).

<sup>47</sup> See LIPSEY ET AL., *supra* note 11, at 273-74 (calling this the "Oligopolist's Dilemma" and providing a game-theoretic model of duopoly).

<sup>48</sup> In game-theoretic terms, an outcome where all firms adhere to the collusive agreement is not a Nash Equilibrium. A Nash Equilibrium occurs when each player in a game chooses a strategy that, given the strategies of the other players, maximizes its payoff. That is, each player's strategy is the best response to the other players'

Faced with this scenario, many of the firms within the cartel might choose to violate the agreed upon consensus, destroying the benefits of collusion in the process. The temptation to cheat is particularly strong if transactions by one firm cannot be observed by its fellow colluders. The low visibility of transactions increases each firm's belief that it can violate the cartel agreement without being "caught" and "punished" by other members of the cartel.<sup>49</sup>

This potential for destruction from within constitutes the single largest threat to the maintenance of collusive equilibria.<sup>50</sup> The ability of cartels to mitigate this force by using LPGs is one reason why LPGs are particularly potent mechanisms for facilitating tacit collusion.

### III. TACIT COLLUSION

#### A. *Facilitating Practices*

As the OPEC example illustrates,<sup>51</sup> even overt legal cartels have difficulty accomplishing the tasks needed for successful collusion. The legal prohibition against collusion only complicates matters.<sup>52</sup> Many illegal cartels are formed through overt means, that is, through formal written or oral agreements negotiated by company officials in the proverbial "smoke-filled room."<sup>53</sup> In recent years, however, legal and economic scholars, antitrust

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strategies. See ROBERT S. GIBBONS, *GAME THEORY FOR APPLIED ECONOMISTS* 7-8 (1991). In the case of a cartel, each of the firms within the cartel is a "player," and the choice of a price or output level constitutes a "strategy." Each firm's "payoff" is its profits. As is the case with most of the games studied by economists, each firm's payoff is dependent upon both its own strategy and the strategies selected by the other players.

<sup>49</sup> See SCHERER, *supra* note 30, at 222-25 (discussing secret price cutting); Clark, *supra* note 5, at 899 (noting the difficulty of detecting cheating if sales are made through private negotiations); Hay, *supra* note 40, at 450-51 (contrasting open and secret sales).

<sup>50</sup> While the difficulty of forming a successful cartel should not be understated, some successful cartels have lasted for years even in industries with a large number of heterogeneous firms covering vast stretches of geography, differentiated products, and widely varying costs. For a particularly vivid example, see the description of the electrical equipment cartel in the 1950s provided by SCHERER, *supra* note 30, at 169-71.

<sup>51</sup> See *supra* notes 42-45 and accompanying text.

<sup>52</sup> In fact, the normally simple task of establishing a cartel is often difficult to accomplish through tacit means. Once a cartel is established, overcoming the other obstacles required for successful collusion through tacit means is equally arduous.

<sup>53</sup> See SCHERER, *supra* note 30, at 169-71 (noting the overt collusion that took place in the electrical equipment industry in the 1950s).

enforcement officials, and courts have recognized the possibility that firms might conspire to fix prices without overtly communicating with each other. Under such "tacit collusion" schemes, any information needed to accomplish the cartel's tasks is communicated through facially neutral means. In essence, firms utilize seemingly benign public announcements, or changes in their pricing policies, output levels, or other variables.

Truly competitive markets, however, provide a poor environment for tacit collusion. Competing firms tend to act myopically. Each firm attempts to maximize its own revenue, yet fails to consider that increasing output can decrease prices and profits for the entire industry. In an effort to emphasize the interdependence between the output by one firm and the profits of the entire industry, firms often adopt one or more "facilitating practices." These facially neutral practices allow firms in an otherwise competitive industry to exchange information and restructure incentives so that tacit collusion becomes more feasible.<sup>54</sup>

### 1. Public Announcements and Interseller Verification

Most facilitating mechanisms appear harmless or even beneficial to consumers at first glance. Upon closer inspection, however, their collusive potential becomes clear. For example, firms might announce price changes publicly with ample advance notice.<sup>55</sup> While customers might appreciate any warning of price changes, this advance notice procedure can be used by a tacit cartel to build a consensus concerning a collusive price target. The length of the advance notice period might be designed to allow other members of the conspiracy to suggest other alternative target prices.<sup>56</sup> Public announcements of other information, like cost or production data, can play a similar consensus-building role. Alternatively, firms

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<sup>54</sup> See 6 PHILLIP E. AREEDA, ANTITRUST LAW ¶ 1435(a), at 222 (1988) (defining "facilitating practices" as "steps [that] can increase the likelihood of anticompetitive tacit coordination"); Joseph J. Simons, *Fixing Price With Your Victim: Efficiency and Collusion with Competitor-Based Formula Pricing Clauses*, 17 HOFSTRA L. REV. 599, 616 (1989) (defining "facilitating practices" as "[c]ertain practices [that] can move oligopoly markets with barriers to entry closer to interdependence"); see also Salop, *supra* note 5, at 271-73 (using game theory to examine various facilitating practices).

<sup>55</sup> See Clark, *supra* note 5, at 919-26 (discussing the use of public announcements as a facilitating practice).

<sup>56</sup> "Firms may make public announcements about pending price increases, often well in advance of their effective date. This allows time for several rounds of counterproposals in achieving a consensus." Hay, *supra* note 40, at 454.

might allow inter-seller verification of price quotations. Under this policy, sellers agree to furnish to any competitor who inquires the price quoted to a particular customer. This strengthens the cartel by eliminating lags in the detection of cheating.<sup>57</sup>

## 2. Delivered Pricing

When firms are geographically dispersed and shipping costs constitute a large share of the total cost to the customer, delivered pricing policies can also facilitate tacit collusion. Under this policy, sellers only quote prices that include the cost of transporting the product to the buyer's place of business. This reduces the burden of establishing a collusive consensus by eliminating uncertainty over transportation costs.<sup>58</sup> Without delivered pricing, cartel members could cheat by disguising price cuts as reductions in shipping charges.

## 3. Product Standardization

The facially neutral process of standardizing a product might also facilitate tacit collusion. By decreasing the number of variables that must be covered by any collusive agreement, product standardization, although often beneficial to consumers, can often lead to higher prices.<sup>59</sup>

Interdependent pricing formulas constitute the most sophisticated mechanism for facilitating tacit collusion. Under these policies, the net price charged by one seller depends, in part, on the prices it has previously demanded or the prices charged by its competitors.

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<sup>57</sup> See Simons, *supra* note 54, at 616-17; see also *United States v. Container Corp. of America*, 393 U.S. 333, 336-37 (1969) (suggesting that the presence of an interseller price verification scheme was evidence of collusion).

<sup>58</sup> See 6 AREEDA, *supra* note 54, ¶ 1435(f), at 231-34; Clark, *supra* note 5, at 902; Hay, *supra* note 40, at 454-55 (noting that without delivered price data, firms seeking to establish a cartel would not know their rivals' delivery charges even if product prices were posted, complicating efforts to collude); see also *In re Ethyl Corp.*, 101 F.T.C. 425, *vacated sub nom.*, *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128 (2d Cir. 1984) (discussing delivered pricing in the anti-knock gasoline additive industry). See generally Dennis W. Carlton, *A Reexamination of Delivered Pricing Systems*, 26 J.L. & ECON. 51 (1983) (describing the conditions under which delivered pricing can be used to facilitate tacit collusion).

<sup>59</sup> See Clark, *supra* note 5, at 902. For an example of product standardization which the Federal Trade Commission prohibited to ensure competition, see *In re National Macaroni Mfrs. Ass'n*, 65 F.T.C. 583 (1964), *aff'd*, 345 F.2d 421 (7th Cir. 1965) (prohibiting macaroni and spaghetti manufacturers from fixing the proportions of ingredients used in their products).

The most common interdependent pricing mechanisms are most-favored-nation clauses ("MFNs")<sup>60</sup> and meeting-the-competition clauses ("MCCs").<sup>61</sup>

#### 4. Most-Favored-Nation Clauses

Under an MFN, a seller guarantees that a buyer will be charged a price no higher than the lowest price the seller charges any other customer.<sup>62</sup> A seller might extend MFNs to all of its customers or just to a select few. These policies are usually inserted as clauses in purchasing contracts, making them legally binding.<sup>63</sup> The attraction such policies hold for buyers is obvious. Most-favored-nation clauses guarantee to buyers that they will pay no more than their rivals, and thereby ensure that they will not be at a cost disadvantage in their industry.

There are two types of MFNs: contemporaneous and retroactive.<sup>64</sup> Under a contemporaneous MFN, a buyer is guaranteed a price no greater than the price paid by any other customer for the same product at the time of purchase.<sup>65</sup> A retroactive MFN, in contrast, promises that the buyer will receive the benefit of any price cuts that occur during a specified period of time after each sale.<sup>66</sup> The collusive implications of these two types of MFNs are similar. Essentially, MFNs change the incentive structure of the firms offering the policies. These firms are penalized for cutting prices, since a price cut extended to one buyer also must be extended to all other customers covered by the MFN. This can significantly raise the costs of price cutting, particularly in the case of retroactive MFNs. As a result, firms following these types of pricing policies tend to avoid lowering their prices. When many

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<sup>60</sup> Most-favored-nation clauses are also known as most-favored-buyer clauses. See 6 AREEDA, *supra* note 54, ¶ 1435(e), at 229; see also *infra* notes 62-69 and accompanying text (discussing MFNs).

<sup>61</sup> See *infra* notes 70-78 and accompanying text.

<sup>62</sup> See Salop, *supra* note 5, at 273; see also 6 AREEDA, *supra* note 54, ¶ 1435(e), at 229 (describing the policy as "price protection" or a "most-favored-buyer clause"); Clark, *supra* note 5, at 932-34 (noting the collusive implications of MFNs); Hay, *supra* note 40, at 455-56 (noting potential benefits of MFNs to public utilities); Simons, *supra* note 54, at 621-23 (considering the role of MFNs in long-term contracts).

<sup>63</sup> See Salop, *supra* note 5, at 278.

<sup>64</sup> See *id.* at 273-78.

<sup>65</sup> See *id.* at 275-78.

<sup>66</sup> See *id.* at 274-75 (noting that the time period is usually between manufacture and delivery of the product, thus protecting early buyers against later price decreases).

firms in an industry offer MFNs, price competition can decrease or disappear.<sup>67</sup>

Of the three tasks required of any cartel for successful collusion, MFNs facilitate the third task—maintaining the collusive equilibrium. If each firm in a silent conspiracy adopted MFNs with all of its customers, the incentive to cheat by lowering prices from their collusive equilibrium would be greatly reduced. Most-favored-nation clauses do not, however, help to accomplish the second task needed for successful cartelization—moving prices from competitive to collusive levels. In fact, if firms introduce retroactive MFNs while prices are at competitive levels, a failed attempt to raise prices to supracompetitive levels becomes extremely expensive given the penalty imposed by the MFNs.<sup>68</sup> In industries where costs decrease with the passage of time,<sup>69</sup> however, MFNs can fix prices and prevent decreases in production costs from being passed on to buyers.

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<sup>67</sup> See *id.* at 275-77 (providing an example of how MFNs can eliminate price cutting). Note that firms may be reluctant to be the first in an industry to offer MFNs since doing so places them at a competitive disadvantage by decreasing their ability to match industry price cuts. See *id.* at 274. Economists have shown, however, that under certain circumstances the adoption of such clauses by one firm can benefit all of the firms in the industry, including the one offering the clause. This occurs because the competitive disadvantage of not being able to match industry price cuts is offset by the MFN's tendency to stabilize prices at a higher level. See *id.* (citing T.E. Cooper, Price Protection Policies and Tacit Collusion (1981) (unpublished manuscript, University of Florida)). See generally THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT 83-118 (1960) (providing a game-theoretic overview of pricing mechanisms).

<sup>68</sup> Note, however, that this result does not occur if firms adopt contemporaneous MFNs.

<sup>69</sup> Costs often fall with the passage of time in industries that benefit from advances in technology, like the computer industry. Furthermore, the production process for some goods is characterized by "learning curves," whereby costs are a decreasing function of cumulative output. See ERNST R. BERNDT, THE PRACTICE OF ECONOMETRICS: CLASSIC AND CONTEMPORARY 61, 66-71 (1991) (providing an overview of learning curve literature); see also Kenneth A. Middleton, *Wartime Productivity Changes in the Airframe Industry*, 61 MONTHLY LABOR REV. 215, 221 (1945) (discussing learning curves in the production of warplanes during World War II); Allan D. Searle, *Productivity Changes in Selected Wartime Shipbuilding Programs*, 61 MONTHLY LABOR REV. 1132 (1945) (presenting a similar study of how learning curves reduced construction costs for Liberty ships). In a competitive market, cost cuts caused by learning curve effects or advances in technology would be passed on to consumers. Most-favored-nation clauses, however, might prevent this from occurring.

### 5. Meeting-the-Competition Clauses

The second type of interdependent pricing policy, meeting-the-competition clauses, do facilitate moving prices from competitive to collusive levels. An MCC is an advertised or contractual provision made by a seller promising to match any lower price offered by another seller.<sup>70</sup> Like MFNs, MCCs can be either contemporaneous or retroactive.

Salop further divides MCCs used in long-term contracts into "release" and "no-release" categories.<sup>71</sup> Under a release MCC, a seller may elect not to meet a lower price offered by a competitor, but in exercising this option the seller must release the buyer from the obligations of the long-term contract.<sup>72</sup> This allows the buyer to receive the benefit of the lower price offered by the competitor. Meeting-the-competition clauses with release provisions are often used if the seller believes that the lower prices offered by competitors are for inferior quality products; a seller who thinks that the buyer would not actually purchase the lower cost substitute may utilize the release clause to call the buyer's bluff.<sup>73</sup> In contrast, under no-release MCCs, the seller has no choice but to match any lower prices offered by competitors.<sup>74</sup>

Meeting-the-competition clauses, like MFNs, clearly extend benefits to purchasers. By contracting for a no-release MCC, a buyer can reap the benefits associated with long-term contracts while guaranteeing that her contract pays the lowest prices. Unfortunately, MCCs may also be used to facilitate tacit collusion. In particular, a seller who provides MCCs to its customers might be tempted to increase prices from competitive to collusive levels. Meeting-the-competition clauses ensure that such a price-leader would not lose any sales while waiting for rivals to match its price increases, since buyers would be granted the lower prices offered by rivals until they followed with their own price increases. In essence, MCCs prevent the lost sales normally associated with leading a price

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<sup>70</sup> See Salop, *supra* note 5, at 280 (providing an example of contract language offering a meeting-the-competition clause); see also *International Salt Co. v. United States*, 332 U.S. 392, 394 n.5 (1947) (providing an example of an MCC, actually a meet-or-release clause).

<sup>71</sup> See Salop, *supra* note 5, at 279-81.

<sup>72</sup> See *id.* at 280.

<sup>73</sup> See *id.*

<sup>74</sup> See *id.*



increase.<sup>75</sup> Similarly, MCCs also eliminate the incentives for rivals to delay price increases because they do not gain any sales by waiting.<sup>76</sup>

While MFNs provide for the maintenance of collusive price levels, MCCs provide a means of increasing prices to supracompetitive levels. Meeting-the-competition clauses are not a particularly effective mechanism for facilitating such price hikes, however, for two reasons. First, the adoption of an MCC policy is largely invisible to other firms. Unless the firm initiating MCCs publicizes its adoption of the practice, its rivals might fail to follow its price increases, mistakenly believing that their delay will win them additional revenue. Therefore, the mere adoption of an MCC policy might send a signal to other firms within the industry to form a tacit cartel, although this signal is weak and might be missed by its intended audience.<sup>77</sup>

Second, though MCCs might be adopted by firms with collusive intentions, if the planned silent conspiracy never emerges, the industry might actually become more competitive. This results because MCCs give buyers an additional incentive to monitor prices. The buyers in turn will inform sellers of the prices being charged by their competitors. This increase in information flow might actually accelerate the movement of prices to competitive levels rather than away from them.<sup>78</sup> As a result, the would-be colluder could end up forced to meet the competitive prices offered by its rivals for the duration of its long-term contracts. Furthermore, even when MCCs are used successfully to move prices above their competitive levels, the resulting positive economic profits are short lived if the industry lacks barriers to entry.

### B. A Simple Example

While each of the practices above facilitates tacit collusion to some degree when used independently, the real power of facilitating mechanisms is revealed when the practices are used in concert. The behavior of General Electric Co. ("GE") and Westinghouse Corp. in

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<sup>75</sup> See *id.* at 281.

<sup>76</sup> See *id.* Note that this might not be true if new buyers enter the market unencumbered by long-term contracts.

<sup>77</sup> In contrast, note the strength of the collusive signal sent when one firm adopts an LPG and then raises prices. See *infra* notes 102-07 and accompanying text.

<sup>78</sup> See Clark, *supra* note 5, at 935 (describing this possibility in the context of meet-or-release clauses).

the turbogenerator industry from 1963 to 1973 provides a clear example.<sup>79</sup> After a long investigation during the 1950s, the Antitrust Division of the Justice Department filed suit against various manufacturers of electrical equipment for forming a cartel in violation of the Sherman Act.<sup>80</sup> This overt cartel had successfully fixed prices on several products, including turbogenerators.<sup>81</sup> In 1962, these manufacturers, including GE and Westinghouse, signed a consent decree in which they agreed to abstain from collusive behavior in the future; the decree did not, however, constitute an admission of guilt.<sup>82</sup>

A decade later the Antitrust Division launched another price-fixing investigation, although this one was restricted to the turbine generator business, an industry dominated by two firms: Westinghouse and GE.<sup>83</sup> The investigation determined that by using facilitating mechanisms, particularly identical pricing policies with an MFN, they had eliminated price competition in the industry.<sup>84</sup>

After the overt electrical equipment cartel ended with the 1962 consent decree, the turbine generator industry was ripe for collusion. First, there was a small number of firms—only two. As a result, any information needed for collusion could easily be exchanged through tacit methods that utilized even weak signals. Second, the large fixed costs and massive economies of scale associated with the production of turbogenerators provided a powerful barrier to entry, so that GE and Westinghouse knew that collusive profits could be sustained in the long term. The only factor deterring collusion was the heterogeneous nature of the

<sup>79</sup> This example is described in a modification to the consent decree that ended the Justice Department's initial antitrust investigation of the turbogenerator industry. The district court's conclusion that the modification was in the public interest is reported at *United States v. General Elec. Co.*, 1977-2 Trade Cas. (CCH) ¶ 61,659 (E.D. Pa. 1977).

<sup>80</sup> 15 U.S.C. §§ 1-7 (1988).

<sup>81</sup> See SCHERER, *supra* note 30, at 170-71.

<sup>82</sup> See *General Elec. Co.*, 1977-2 Trade Cas. (CCH) at 72,716-17.

<sup>83</sup> See *id.* at 72,716.

<sup>84</sup> As the court confirming the consent decree wrote:

The government does not contend that the elimination of price competition was the result of any direct covert communication between the parties, but rather that it was the result of the conscious adoption and publication of identical pricing policies in 1963-64 and the strict adherence to those policies since that time.

product; turbogenerators often must be custom-built to meet the particular needs of each buyer.<sup>85</sup>

In 1963, GE augmented the industry's natural proclivity toward collusion by adopting several facilitating practices. First, the firm constructed and publicly released a detailed price book. Rather than listing the prices for completed generators, however, the price book specified prices for components.<sup>86</sup> The total cost of a generator could be determined by adding the cost of each component required by the particular buyer. Second, the company announced all price changes publicly. Third, GE adopted a retroactive MFN which provided that if GE lowered the price charged to one buyer, any customer who had purchased within the previous six months would be given an identical discount retroactively.<sup>87</sup> In short order, Westinghouse adopted each of these facilitating practices, including publishing a price book identical to GE's.<sup>88</sup>

After some initial confusion caused by Westinghouse's failure to interpret the pricing books correctly,<sup>89</sup> the firms managed to collude so successfully that they eliminated price competition. In fact, the pricing books and public announcements of price changes were so detailed that they enabled each manufacturer to predict the exact price the other would bid in a particular situation and even the precise type and size of turbogenerator.<sup>90</sup> In effect, the wide variety of turbogenerators demanded by customers meant that the price books had to be detailed in order to facilitate tacit collusion. The retroactive MFN served to deter price-cutting by imposing a substantial penalty on any firm that lowered the price charged to even a single customer. GE added legitimacy to the MFN by hiring a public accounting firm to verify compliance with the price protection upon the request of any customer.<sup>91</sup> Casual observa-

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<sup>85</sup> See SCHERER, *supra* note 30, at 170 (noting that with turbine generators, "each buyer demands modifications to suit its own special needs, and, as a result, two orders are seldom exactly alike").

<sup>86</sup> See *General Elec. Co.*, 1977-2 Trade Cas. (CCH) at 72,716.

<sup>87</sup> See *id.*

<sup>88</sup> See SCHERER, *supra* note 30, at 182 (noting that GE, not Westinghouse, was the price leader).

<sup>89</sup> See *id.* at 182 (noting that when Westinghouse misinterpreted the price books and undercut GE's price, GE viewed this as deliberate cheating and responded in kind; within two months, however, both firms increased prices to the initial level charged by GE).

<sup>90</sup> See *General Elec. Co.*, 1977-2 Trade Cas. (CCH) at 72,716.

<sup>91</sup> See JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* 85 (1988).

tion suggests that the tacit cartel comprised of GE and Westinghouse was extremely successful. "In sharp contrast to the history of the 1950s and early 1960s, GE and Westinghouse effected *no* generator price decreases" during the 12 years after the adoption of the facilitating practices in 1963.<sup>92</sup> In fact during this period, the firms managed to raise prices several times, usually with GE leading any price increase and Westinghouse following within four days.<sup>93</sup> The tacit cartel ended when the Justice Department convinced GE and Westinghouse to sign a consent decree designed to end the price signalling. In particular, the decree prohibited the firms from: publishing or utilizing price books, offering MFNs, and publicly announcing price changes.<sup>94</sup>

### C. Offsetting Efficiencies

Although facilitating practices can be used for anticompetitive purposes, as the GE-Westinghouse example illustrates, many of these policies have legitimate, noncollusive uses as well. These efficiency-enhancing effects must also be considered when evaluating these policies.<sup>95</sup>

For example, public announcements of price and output changes provide obvious benefits to customers who require advance notice to plan their own production. Similarly, standardizing a product can aid buyers by reducing supply uncertainties and lowering inventory costs. In addition, both MFNs and MCCs

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<sup>92</sup> SCHERER, *supra* note 30, at 182.

<sup>93</sup> *See id.*

<sup>94</sup> *See* United States v. General Elec. Co., 1977-2 Trade Cas. (CCH) ¶ 61,660, at 72,718-20 (E.D. Pa. 1977) (modifying the consent decree and setting forth the restrictions); United States v. Westinghouse Elec. Corp., 1977-2 Trade Cas. (CCH) ¶ 61,661 (E.D. Pa. 1977) (same).

<sup>95</sup> Offsetting efficiencies must be considered for two reasons. First, a facilitating practice should not be condemned if its procompetitive influences exceed its collusive potential. Second, to prove a violation of the Sherman Act, the plaintiff usually must show that the defendants had an "agreement" and that the net effect of the agreement was anticompetitive. *See* National Soc'y of Professional Eng'rs v. United States, 435 U.S. 679, 688-89 (1978) (balancing the procompetitive and collusive potential of allowing a professional organization to adopt industry-wide standards); United States v. Realty Multi-List, Inc., 629 F.2d 1351, 1370 (5th Cir. 1980) (same). This balancing approach is called the "rule of reason." *See* LAWRENCE A. SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST § 68, at 187 (1977) (noting that under the rule of reason approach "analysis is necessary to determine whether a particular practice will restrain or aid competition, or if it has tendencies in both directions, what the net effect is likely to be").

provide several advantages to buyers, particularly in long-term supply contracts.

First, the contracts can be used to allocate risk efficiently.<sup>96</sup> So, if the seller is better able to forecast price changes, the MFN increases efficiency by ensuring that the seller shoulders any such changes. Second, purchasers can use both MFNs and MCCs to guarantee that they do not suffer a competitive disadvantage relative to rivals buying the same input.<sup>97</sup> These interdependent pricing policies might also increase efficiency if the elimination of price uncertainty convinces buyers to consummate purchases sooner than they would without the price protection. Finally, interdependent pricing policies might enhance efficiency by disseminating information. Meeting-the-competition clauses might help sellers keep their prices competitive with their rivals, for example, by speeding the flow of price information. Similarly, in an environment with MCCs and MFNs, buyers will always be able to calculate the actual market price.

#### IV. LOW-PRICE GUARANTEES AS FACILITATING MECHANISMS

##### A. *The Mechanics of Using LPGs to Facilitate Collusion*

In contrast to other facilitating practices, which are most effective when used in concert, LPGs can facilitate tacit collusion even when used independently. This section explains the mechanics of using LPGs to facilitate tacit collusion. Specifically, the discussion in this section describes the use of LPGs in a simplified, theoretical environment in order to provide insight into how the devices might work in the real world. Obviously, actual markets might violate some of these assumptions, and the impact of these violations is discussed below.<sup>98</sup>

##### 1. Simplifying Assumptions

To simplify the explanation of using LPGs to facilitate tacit collusion, the target industry is assumed to have the following characteristics. First, before the implementation of the LPG, the industry is at a long-term competitive equilibrium and therefore is

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<sup>96</sup> See Clark, *supra* note 5, at 932-34 (noting that MFNs can accomplish risk-shifting if the buyer is risk averse).

<sup>97</sup> *Id.* at 934-35.

<sup>98</sup> See *infra* part IV.C.

earning zero economic profits. Second, the industry features a single homogeneous product. For purposes of this example, the product will be a specified model of a portable stereo system. Third, there are zero transaction costs.<sup>99</sup> Fourth, consumers buy from sellers offering the lowest net price. The combination of the third and fourth assumptions implies that any time a buyer can lower her costs by exercising an LPG, she will in fact do so. If, for example, the industry has two firms, one offering a price of \$100, the other offering a price of \$105 and providing a 110% LPG, the customer will purchase from the second seller and activate the LPG, paying a net price of \$99.50.<sup>100</sup> Finally, note that LPGs, like MFNs, may be either contemporaneous or retroactive. While this distinction does not significantly affect the logic which follows, for simplicity assume that all LPGs are retroactive.<sup>101</sup>

## 2. Initiating the Move to the Collusive Equilibrium

At the initial long-term competitive equilibrium, the homogeneous nature of the product ensures that there will be a single price that clears the market. Therefore, all firms will be charging the same price, say \$100, for the portable stereo. Furthermore, since the industry is earning zero economic profits there is no entry or exit from the industry.<sup>102</sup> At this point, one firm, the price leader, wishes to establish a tacit cartel to raise prices above

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<sup>99</sup> Transaction costs are defined to include "the costs of identifying the parties with whom one has to bargain, the costs of getting together with them, the costs of the bargaining process itself, and the costs of enforcing any bargain reached." See A. MITCHELL POLINSKY, *AN INTRODUCTION TO LAW AND ECONOMICS* 12 (2d ed. 1989). In the context of using LPGs, transaction costs might include the cost of locating the retailer extending an LPG, the cost of finding a competitor's advertisement offering a lower price, and the cost of exercising the guarantee.

<sup>100</sup> To calculate the net price, first note that the difference between the prices of the first and second sellers is \$5. Since the seller offering the LPG promises to refund 110% of this difference, or \$5.50, a customer purchasing from this seller would pay \$105 - \$5.50 = \$99.50.

<sup>101</sup> As with MFNs, the only difference is that a retroactive LPG is a more effective mechanism for maintaining a collusive price level than a contemporaneous LPG because the self-imposed penalty for price-cutting is greater with the former. Any price cut must be passed on to the price-cutting firm's previous customers under a retroactive LPG.

<sup>102</sup> The sellers need not be identical. This has not been assumed, nor would it be expected. As a result, the assumption of zero economic profits for the industry does not imply that each firm is earning zero economic profits. In fact, some might earn positive economic profits whereas others might have losses. Each firm's results would depend upon its cost structure.

competitive levels and increase industry profits.<sup>103</sup> Rather than adopting numerous facilitating practices and hoping that its rivals follow suit, however, the price leader decides to raise its posted price 5% and offer a 110% LPG.<sup>104</sup>

Given the operation of the LPG, the net price charged by the price leader falls to \$99.50, which is \$.50 cheaper than the \$100 demanded by other sellers. This lower net price, coupled with the assumption of zero transaction costs, entices all buyers to purchase from the price leader. As a result, its market share instantly jumps to 100%, while the market shares of all other firms fall to zero. Despite this increase in market share, however, the price leader is not necessarily better off. This is because its net revenue per sale has fallen by \$.50. As a result, unless its per-unit costs decrease with increased sales, the price leader is worse off after raising its price and offering the LPG.<sup>105</sup> For the other firms in the industry the situation is more drastic: the imposition of the LPG causes their revenue to fall to zero. Therefore, these firms will all incur losses because they must still pay their fixed costs.<sup>106</sup>

This simple example illustrates the first strength of using LPGs as a mechanism for facilitating tacit collusion: the signal sent by the imposition of the LPG is extremely strong. The imposition of the LPG by a single firm sends an immediate and very visible signal to all of the other firms in the industry that one of their rivals seeks to engage in collusive behavior.<sup>107</sup> The strength of the signals sent by other interdependent pricing policies, in contrast, is much

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<sup>103</sup> Increasing prices will not increase industry profits unless the absolute value of the price elasticity of demand is less than one. See LIPSEY ET AL., *supra* note 11, at 256 (discussing factors to be considered by barbers wishing to form a cartel to raise profits from cutting hair). If the absolute value of the elasticity is greater than one, the increase in per-unit revenue will be more than offset by a drop in the number of units sold. The price elasticity of demand is defined as the ratio of the percentage change in quantity demanded to the percentage change in price. *Id.* at 75; see also *infra* notes 133-35 and accompanying text (explaining the relationship between elasticity of demand and the potential for cartelization).

<sup>104</sup> For an example of the wording of such a guarantee, see *supra* note 1 and accompanying text (quoting the Circuit City advertisement).

<sup>105</sup> This does not, however, mean that the price leader incurs losses as a result of the change in pricing policy. If the firm was earning positive profits before the change, it could still earn positive profits afterward, although the level of profits would fall. Obviously, if the firm was initially incurring losses or just breaking even, it would be generating greater losses after the adoption of the LPG.

<sup>106</sup> Fixed costs are defined as costs that do not change with output. They are also called overhead or unavoidable costs. See LIPSEY ET AL., *supra* note 11, at 962.

<sup>107</sup> Though every firm in the industry receives the signal sent by the price leader's adoption of the LPG, some may misinterpret it.

weaker. For example, if the price leader offered an MCC (with a guarantee premium less than 100% of the price difference) instead of an LPG, consumers would be indifferent between purchasing from the price leader and any of its rivals. As a result, sales would be divided between the price leader and the other firms. By adopting an LPG which promises to refund more than 100% of the price difference, in contrast, the price leader can siphon away all of its competitors' sales.

### 3. Responses by Other Firms

Once the price leader has enacted the LPG, the other firms in the industry must decide how to respond. They might lower their prices in an attempt to regain their market share. Paradoxically, however, following this strategy would only increase the incentive for buyers to purchase from the price leader. By cutting their prices, other firms effectively increase the difference between their prices and those offered by the price leader. This in turn increases the cost savings generated by activating the LPG. For example, if the other firms cut the stereo's price from \$100 to \$95, the difference between the prices charged by these firms and the price leader increases to \$10. As a result, the net price of purchasing from the price leader and then exercising the LPG is \$94.<sup>108</sup>

Although any price cutting by firms other than the price leader would only increase the price leader's market share, pursuing this strategy could make sense. Price cuts increase the cost of offering the LPG to the price leader, since the increase in price differences raises the guarantee premium. Therefore, by cutting prices, the other firms could raise the cost of offering the LPG, forcing the price leader to incur unsustainable losses. This strategy would be expensive, however, since the other firms would have to survive with zero revenue (and net losses, given fixed costs) until the price leader capitulated and rescinded the LPG. The strategy would be particularly expensive in situations where the price leader was actually profitable after offering the LPG.

Rather than cutting prices and waiting for the price leader to return to his previous pricing policy, the other firms could respond by mimicking the price leader. By increasing their prices and

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<sup>108</sup> To calculate this figure, first note that under the terms of the 110% LPG the price leader's price falls by \$11 ( $1.10 \times 10$ ). So the net price of purchasing from the price leader and then activating the LPG would be  $\$105 - \$11 = \$94$ .



offering LPGs identical to that of the price leader, these firms could regain their market share. Unless all firms increase their prices to the level set by the price leader in concert, a firm that merely posts a higher price but fails to offer an LPG would not gain any revenue. This is because the net price to consumers of purchasing from this firm would be higher than the prices charged by its rivals offering the LPG.

Suppose, for example, that the aforementioned stereo could be purchased from three retailers, the price leader and two "followers." Suppose further that the price leader raises prices from the competitive equilibrium level of \$100 to \$105 and then imposes the LPG. If both followers immediately increase their prices to \$105, then the exercise value of the LPG drops to zero—it is only valuable if there is a difference between the prices charged by the firm offering the LPG and the followers. As a result, customers might be indifferent among purchasing from any of the three firms, so the two followers would once again receive revenue. Alternatively, consumers might value the LPG, particularly if it were retroactive, for the price protection it offers. Then the two followers would have to both match the price leader's price and offer an identical LPG in order to win revenue.

If the followers fail to arrive simultaneously at the supracompetitive price posted by the price leader (arguably a more realistic occurrence), then the first firm to reach the leader's price must also replicate the leader's LPG in order to gain a positive market share. To illustrate this, one need only modify the previous example so that only one of the two followers matches the price leader's price. Suppose, for example, that the price leader and the first follower each post prices of \$105, while the second follower leaves his price at \$100. In this situation, the net price of buying from the leader and exercising the LPG is \$99.50, while the net prices of buying from the first and second followers are \$105 and \$100 respectively. As a result, the price leader's market share would be left unchanged at 100%. If, however, the first follower also offers an LPG once it raises its price to \$105, then consumers would be indifferent between purchasing from it or the price leader. These two firms would then share the market.

In essence, when one firm offers an LPG, the other firms in the market often are forced to respond by offering matching LPGs to win back market share. This effect helps maintain prices at supracompetitive levels, particularly if the LPGs are retroactive, by deterring price cutting. Furthermore, once additional firms have

matched the price leader's LPG, the cartel can survive even if the initial price leader leaves the industry.<sup>109</sup>

#### 4. Refining the Equilibrium

After LPGs have been used to facilitate an initial increase in prices, nothing prevents firms from repeating the process to fine-tune the collusive equilibrium. Therefore, if the initial collusive equilibrium price was set too low to maximize the profits of each of the firms in the cartel, the continuing presence of LPGs facilitates a second round of price increases to accomplish this goal. If all of the firms in the cartel had identical cost structures, then there would be unanimous agreement about the ideal collusive price level. If costs were constant, for example, and not a function of sales, then the cartel would prefer to move prices to the level where the price elasticity of demand is unity.<sup>110</sup>

When the firms have different cost structures and costs are a function of output, the problem faced by the cartel is more complex. Each firm in the cartel might prefer a slightly different price level. As a result, the collusive equilibrium might be unstable. Even if such "bickering at the finish" of the movement toward collusive prices does occur, however, every firm would still prefer to keep prices above their competitive levels. In effect, any bickering about the ideal price level is more likely to result in a constantly shifting collusive equilibrium than in the complete collapse of the cartel. The operation of LPGs, however, will mitigate the instability of the collusive equilibrium. By depriving firms that cut prices of all revenue, LPGs bias price instability in an upward direction.<sup>111</sup>

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<sup>109</sup> One would not expect the price leader or any other firm to leave the industry, particularly once the collusive equilibrium has been achieved. If, however, the price leader were a conglomerate, heavy losses in other sectors could force it into bankruptcy and out of the collusive industry.

<sup>110</sup> See LIPSEY ET AL., *supra* note 11, at 248 (noting that this level maximizes industry revenue).

<sup>111</sup> This would be particularly true if the LPGs were retroactive.

### 5. Deterring Entry

After the tacit cartel has established a collusive equilibrium, the concomitant positive economic profits will attract new entrants to the industry. Fortunately for the cartel members, however, LPGs operate to deter entry in three ways. First, naive entrants, those who enter the industry merely offering lower prices in an effort to undercut the cartel, will fail to generate any revenues. If the other firms in the industry provide LPGs, then any new entrant posting a lower price will have a higher net price thanks to the operation of these pricing policies.

The second deterrent provided by LPGs can stymie even more sophisticated entrants. Erudite entrants attracted to the industry by the supracompetitive profits found at the collusive equilibrium might realize that attempting to undercut the equilibrium price is unwise, since this only increases the incentive to purchase from firms offering the LPGs. Therefore, these sophisticated entrants might enter the industry by offering an LPG and charging the same price as the cartel. A firm that enters the industry in this manner, however, can gain a share of the market only by wresting it away from a member of the cartel. This is because the collusive equilibrium facilitated by LPGs fixes the price level.<sup>112</sup> The aggregate quantity demanded in the industry is then also fixed since the industry demand schedule provides the unique quantity which consumers will demand for a given price.<sup>113</sup> As a result, any market share gained by a new entrant must come at the expense of existing firms. This result is unique to collusive equilibria established via LPGs.<sup>114</sup> Faced with the fact that any sales must come at the expense of the better known cartel members, potential entrants may be deterred. This is particularly true in industries where the existing firms have established brand loyalty and name

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<sup>112</sup> To earn any revenue, the new entrant must set its price at the level provided by the collusive equilibrium.

<sup>113</sup> At any given price level, consumers will demand a specific quantity of the product. The graphic representation of this relationship between price and quantity is known as the demand curve. See LIPSEY ET AL., *supra* note 11, at 56-57. If there are exogenous shocks to industry demand, then this unique quantity demanded could vary over time.

<sup>114</sup> With most collusive equilibria, economic profits attract new entrants whose additional output forces prices lower.

recognition.<sup>115</sup> Any entrant would have to wage an expensive advertising campaign to gain a foothold in the industry.

The third method in which collusive equilibria facilitated by LPGs discourage new entry results from the fact that the adoption of an LPG by one firm often inspires other firms to establish identical pricing policies.<sup>116</sup> As a result of this process, many firms in the industry may offer LPGs. This increases the cost to a potential entrant that hopes to break the cartel by offering very low prices. Entering the industry with very low prices creates a huge gap between the prices charged by the entrant and the cartel, forcing cartel members offering LPGs to incur exorbitant guarantee premium costs. If only one firm in the cartel offered an LPG, then this entry strategy might be attractive, since a well capitalized entrant could survive without revenue until the losses incurred by the firm offering the LPG grew unsustainable. When multiple members of the tacit cartel offer LPGs, however, the strategy loses its luster. Outlasting one firm might be possible, but potential entrants might be deterred if required to outlast most of the firms in the industry.

As a result of these three entry deterrence mechanisms, the supracompetitive profit levels facilitated by LPGs might survive even in the long run. This is in sharp contrast to the fleeting profits generated by less effective methods of implementing tacit collusion.<sup>117</sup>

## B. *Economic Evaluation*

### 1. Economics Upside-Down

Compared to traditional economic theory, the incentive structure induced by offering LPGs is best described as bizarre. In a normal market, firms posting the lowest price tend to earn the largest portion of sales, price cutting results in a greater market share, and if the industry is earning positive economic profits,

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<sup>115</sup> Cf. SCHERER, *supra* note 30, at 380-93 (discussing the costs and benefits of advertising and product differentiation).

<sup>116</sup> See *supra* part IV.A.3.

<sup>117</sup> These supracompetitive profits may, however, be extracted as rents by companies supplying the collusive industry. These suppliers could demand higher prices for the inputs used by members of the cartel. See *infra* part IV.C.2 (noting that firms supplying the cartelized industry might be able to raise the prices they charge retailers, extracting a share of the cartel's monopoly rents).

additional firms enter the industry. In a market where LPGs are present, however, each of these relationships is inverted. A firm posting a higher price and offering the LPG earns all or most of the revenue. Competitors posting lower prices see their market shares disappear. Furthermore, price cutting by firms not offering the LPG only provides buyers with additional incentive to purchase from the market leader. In contrast to most markets, in industries possessing LPGs firms must increase their posted prices in order to regain market share. Finally, the firms that have cartelized an industry through the use of LPGs can escape the dismal fate of earning zero economic profits even in the long term.

## 2. Simplifying the Cartel's Tasks

The incentive system established by using LPGs, no matter how strange, provides a fertile environment for tacit collusion. In fact, compared to LPGs, other facilitating practices, whether used alone or in concert, seem outmoded. The effectiveness of the LPG stems from its ability to simplify each of the three tasks required for successful collusion.<sup>118</sup>

If other facilitating practices are used, then the cartel's first task, establishing a consensus, requires the active participation of every member of the cartel. In particular, each member of the cartel must know that it is a member in order for coordinated action to take place. When one or more firms wish to cartelize an industry through tacit means, forming the cartel becomes especially difficult. If a single firm adopts one or more of the facilitating practices traditionally used to encourage tacit collusion, for example, its action does not extend an obvious invitation to other firms in the industry to follow suit and form a cartel.

One can hypothesize an industry at a competitive equilibrium in which many firms share the market. If the industry contains only a single homogenous product, then every firm must be charging the same price in order to garner sales. Suppose that one firm wishes to raise prices through tacit collusion. It might adopt an MCC, begin announcing its price changes publicly, and institute delivered pricing in order to ripen the market for tacit collusion. Unfortunately for this would-be cartel leader, however, these actions might go unnoticed by other firms in the industry. This is because such actions might not impact the sales and profits of other firms.<sup>119</sup>

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<sup>118</sup> These tasks are described *supra* note 40 and accompanying text.

<sup>119</sup> Specifically, if buyers based purchase decisions only on price and valued

In contrast, if the potential cartel leader utilized an LPG and raised its price, the other firms would immediately see their revenue drop drastically, an event that could never go unnoticed. While the other firms might fail to interpret these changes as an invitation to engage in tacit collusion, the potential cartel leader's acts would be heard throughout the industry. In essence, the adoption of facilitating mechanisms by one firm merely provides other firms with an opportunity to collude. The institution of an LPG, in contrast, *coerces* the other firms into playing their role in the collusive equilibrium. Furthermore, once the cartel has been established, the new higher price offered by the price leader provides an easily recognizable target price for the cartel.<sup>120</sup> Under other forms of tacit collusion, no one price level stands out as an obvious goal for the cartel, which complicates efforts to establish a collusive consensus.

By essentially coercing all of the firms in an industry to raise their prices, the operation of LPGs greatly simplifies the cartel's second task—moving prices to collusive levels. In fact, it is difficult to characterize the follower firms as members of a cartel since their price increases could be the only rational responses to the adoption of the LPG by the price leader.<sup>121</sup> In addition, once the collusive equilibrium has been established, the cartel's third task—maintaining prices at this higher level—is also facilitated by the LPG's ability to deter price cutting and entry into the industry. In short, the three obstacles to successful collusion which appeared so daunting before now look much easier to overcome thanks to the imposition of LPGs.

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neither the MCC, public price announcements, nor delivered pricing, then the sales of each firm would remain unchanged. No sales change would occur because these facilitating practices leave the net price paid by the buyer unchanged.

<sup>120</sup> In economic jargon, the price adopted by the price leader is a "focal point." See SCHERER, *supra* note 30, at 190-93 (offering several examples of focal points). See generally F.M. Scherer, *Focal Point Pricing and Conscious Parallelism*, 12 ANTITRUST BULL. 495, 497-502 (1967) (describing the technique of focal-point pricing).

<sup>121</sup> This simple observation has legal ramifications. See *infra* notes 173-81 and accompanying text.

### 3. Absence of Additional Offsetting Efficiencies

While LPGs are extremely effective at facilitating tacit collusion, they do offer some offsetting efficiencies. Specifically, they can be used by buyers to ensure against being placed at a disadvantage relative to their rivals. In addition, retroactive LPGs can be used by risk-averse buyers to place the risk of price cuts on the seller, who might be better able to bear this risk.<sup>122</sup> Finally, LPGs accelerate the flow of information in the economy by giving buyers an incentive to inform sellers that other firms are offering lower prices.

This list of offsetting efficiencies, however, is identical to the list of benefits provided by traditional facilitating practices.<sup>123</sup> In essence, LPGs offer the same advantages associated with combining MCCs and MFNs but also provide a much greater potential for facilitating tacit collusion. This suggests that LPGs should be closely regulated or even prohibited.

#### C. *Using LPGs in the Real World*

##### 1. Violations of the Simplifying Assumptions

Although the above analysis suggests that LPGs have the theoretical potential to cause great harm, the assumptions made to derive the result do not stand in most markets. In particular, it is useful to see how the analysis changes when the assumptions of a homogeneous product and zero transaction costs are violated.

The assumption that the industry contained a single homogeneous product was instrumental to the effectiveness of using LPGs to induce tacit collusion. If every firm in the industry sold a slightly differentiated product, then the firm offering the LPG would have to decide which competing goods the LPG should cover.<sup>124</sup> This complicates efforts to collude through tacit means, particularly if production costs vary greatly across firms. If the LPG did not apply

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<sup>122</sup> For an interesting discussion on efficient risk-bearing, see COOTER & ULEN, *supra* note 20, at 425-30 (noting that product warranties might be offered to encourage efficient risk-bearing). See generally POLINSKY, *supra* note 99, at 53-58 (explaining the costs associated with bearing risk).

<sup>123</sup> See *supra* part III.C.

<sup>124</sup> In fact, new entrants seeking to undercut a cartel that uses LPGs could attempt to develop close substitutes for the products covered by the LPGs. If the LPG did not apply to these substitutes, then the new entrant could undermine the cartel by pricing its product below the collusive level. In this sense, cartels forged via LPGs provide a strong incentive for product differentiation.

to all of the close substitutes for the price leader's product, then by enacting the LPG and raising the price, the price leader would merely lose market share, since the substitutes not covered by the guarantee would have a lower net cost. Extending the LPG to include lower cost substitutes, however, would increase the cost of offering the LPG, since this raises the guarantee premium payments rebated to buyers. This analysis might explain why the use of LPGs seems most common in retailing, since retailers can, and often do, limit the scope of their guarantees to competitors that are offering a lower price on products of a specified brand and model number.<sup>125</sup>

The assumption of zero transaction costs ensured that customers would always exercise LPGs that reduced the net price of the product. In reality, however, determining which competitors offered lower prices could be costly, particularly in industries that do not advertise. Furthermore, a customer wishing to activate a retroactive LPG after making a purchase would have to incur the expense of revisiting the retailer or regaining contact with the seller. If these transaction costs exceeded the rebate provided by exercising the LPG, the guarantee would not be utilized. In reality, one would expect transaction costs to differ greatly across the firms in the industry. Therefore, exercising an LPG might make sense for some buyers and not for others. The follower firms, those not offering LPGs, might still attract revenue even if they continued to post prices lower than the price leader's. Although the theoretical evaluation of LPGs provided earlier indicated they send a deafening signal to the follower firms (i.e., total deprivation of revenue), when transaction costs are considered, the volume of the signal drops markedly (to a partial loss of revenue). Note, however, that as long as some buyers exercise the LPG, then other firms in the industry should see their revenues and profits drop.<sup>126</sup>

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<sup>125</sup> Restrictions of this type usually appear in the fine print of advertisements extending LPGs. Small type below the LPG provided in the aforementioned *Wiz Home Entertainment Centers* ad, for example, notes that the competitors' prices covered by the LPG "must be for the identical model number." *Wiz*, *supra* note 2, at A20.

<sup>126</sup> Of course, even if none of the buyers in the industry exercises the LPG, the mere adoption of an LPG by one firm might be viewed by other firms as a signal to collude. Under this circumstance, however, the signal sent by instituting the LPG is a passive one, which must be noticed as the result of affirmative acts by the receiver. In essence, the signal sent by a completely unexercised LPG is identical to that sent by adopting MCCs or MFNs. This is a much weaker signal than is sent by an exercised LPG, since signals of this latter type have a blunt impact on the income



Allowing for transaction costs does not substantially change the argument presented earlier, however, since the price leader can always act to minimize the impact of transaction costs. First, it could minimize such costs directly. It might, for example, keep detailed records of each sale, verify claims that competitors offer lower prices via phone, and rebate retroactive guarantees by mail so that buyers wishing to exercise the LPG need not revisit the retailer offering the LPG. Second, and more importantly, the price leader can tailor its actions to ensure that the benefit of exercising the price guarantee exceeds the transaction costs faced by most consumers. It can increase the exercise value of the LPG by either increasing the percentage of the price difference refunded to consumers or by raising its price to a higher level after instituting the LPG.

Reconsider the example presented earlier,<sup>127</sup> where the price leader imposed a 110% LPG in a market where the competitive equilibrium price was \$100. The price leader then raised its price \$5 to \$105. The net price to buyers purchasing from the price leader and exercising the LPG was \$99.50.<sup>128</sup> Therefore, the exercise value of the LPG was only \$.50. For many consumers, the transaction costs incurred exercising the LPG might exceed \$.50. The buyer might have to purchase a newspaper, for example, to acquire an advertisement proving that a price leader's competitor is charging a lower price.<sup>129</sup> As a result, relatively few buyers would exercise the LPG, weakening its collusive signal. The price leader can rectify this situation by increasing the percentage of price differences refunded to consumers. In the current example, if the price leader replaces his 110% LPG with a 150% LPG, the net price of buying from the price leader and then exercising the LPG falls to \$97.50, increasing the exercise value of the LPG to \$2.50.<sup>130</sup>

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statements of firms posting the lowest price.

<sup>127</sup> See *supra* part IV.A.

<sup>128</sup> See *supra* note 100.

<sup>129</sup> In the retail context, the transaction costs associated with exercising the LPG are actually very low, particularly for exercising a contemporaneous LPG. If the buyer already subscribes to a newspaper, for example, then she must merely clip out a competitor's advertisement evidencing a lower price and take it with her when she makes her purchase. (The time and expense of traveling to the store cannot be considered transaction costs of exercising the LPG, since these expenses would have been incurred anyway.) Grocery shoppers frequently clip coupons which provide savings of as little as \$.25, so the transaction costs incurred by a consumer exercising an LPG in the retail electronics context might be less than \$.50.

<sup>130</sup> The difference in prices charged by the price leader and other firms in the

Therefore, every consumer who could exercise the LPG without incurring transaction costs greater than \$2.50 would find it in her interest to do so. By increasing the rebate percentage, the firm offering the LPG could entice more consumers to exercise it, strengthening the collusive signal.

Alternatively, the price leader could increase the exercise value of the LPG by increasing the difference between its price and the prices charged by other firms. If the price leader institutes a 110% LPG but then raises its price to \$125, for example, then its net price to buyers who exercise the LPG is only \$97.50.<sup>131</sup> Once again, all buyers who could exercise the LPG without incurring more than \$2.50 in transaction costs would do so.

In many situations, however, the price leader might prefer to overcome the effects of transaction costs by varying the rebate percentage rather than its price. This is because the price leader will often prefer to raise its price to the exact level that maximizes its profits, so that this collusive price level becomes the cartel's target. As was mentioned earlier, the price level selected by the price leader could become a focal point for the cartel.<sup>132</sup> A price leader intending this result would therefore be constrained in selecting its price level to overcome the influences of transaction costs.

## 2. Industry Characteristics

Though the theoretical discussion of LPGs provided earlier did not place any specific restrictions on industry characteristics (except the product homogeneity requirement), LPGs are in fact more effective in industries with certain features. The ideal industry for cartelizing via LPGs would have the following characteristics: inelastic demand, price flexibility, frequent sales transactions, widespread use of advertising, existence of one or more well capitalized firms, economies of scale, and the ability to prevent vertical dissipation of profits.

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industry remains at \$5. The amount rebated to consumers, however, is now \$7.50 ( $1.5 \times \$5$ ). The net price of purchasing from the price leader and exercising the LPG is then  $\$105 - \$7.50 = \$97.50$ .

<sup>131</sup> The price difference is \$25 ( $\$125 - \$100$ ). The exercise value of the LPG is \$27.50 ( $1.10 \times \$25$ ). Therefore, the net price of buying from the price leader and then exercising the LPG is  $\$125 - \$27.50 = \$97.50$ .

<sup>132</sup> See *supra* note 120 and accompanying text.

If the demand for a good is inelastic, then increases in the price of the good will result in relatively small changes in the quantity demanded.<sup>133</sup> In fact, raising the price of a good with an inelastic demand increases the total revenue of the industry supplying the good. This occurs because the increase in per-unit revenue at the higher price exceeds the loss of revenue resulting from the decrease in the quantity demanded.<sup>134</sup> If the demand for a good is elastic, in contrast, increasing price decreases total revenue.<sup>135</sup> As a result, cartels, whether tacit or overt, are less likely to form in an industry with elastic demand.

Price flexibility is also required for LPGs to be effective mechanisms for implementing tacit collusion. In many manufacturing industries where prices are fixed by long-term contracts, for example, a potential price leader might be unable to raise its price after instituting an LPG. In the retailing trades, in contrast, prices can vary on a daily basis, so a seller could increase its price with little difficulty. Similarly, a price leader in a retailing industry could easily cancel its LPG if the rebates it granted customers became too expensive. This might occur if the other firms in the industry rejected the price leader's invitation to join a tacit cartel and instead maintained their prices at competitive levels.

Frequent sales transactions also increase the effectiveness of LPGs by expediting the revenue changes that signal the follower firms to increase their prices. In industries where sales occur infrequently, the price leader might have to wait a long time to receive any supracompetitive profits from the cartel. As a result, the discounted value of these profits might be insufficient to justify the initial cost of instituting the LPG. In such cases, firms would be unwilling to play the role of the price leader.

Advertising eases the collusive application of LPGs by providing firms offering LPGs with accurate quotations of prices charged by rival firms. In fact, many LPGs contain an express requirement that buyers wishing to exercise the guarantee provide a printed advertisement proving that a rival firm is offering a lower price.<sup>136</sup> With-

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<sup>133</sup> The elasticity of demand is defined as the ratio of the percentage change in quantity demanded to the percentage change in price. See LIPSEY ET AL., *supra* note 11, at 75. If the absolute value of this ratio is less than one, the demand for the good is said to be inelastic. See *id.* at 76.

<sup>134</sup> See *id.* at 77 (noting that if demand is inelastic, the price change dominates the change in quantity demanded).

<sup>135</sup> See *id.*

<sup>136</sup> The Sixth Avenue Electronics and Wiz Home Entertainment Centers

out this requirement, customers would have an enormous incentive to lie about the prices charged by rival firms in order to maximize the exercise value of the LPG and minimize their net costs.<sup>137</sup> Obviously, in this environment firms would be reluctant to offer LPGs in the first place. When most firms in the industry advertise, however, a price leader can extend an LPG with confidence that claims made by customers about its competitors' prices can be verified.<sup>138</sup>

When a price leader first institutes an LPG and raises its price above the level charged by its competitors, it must rebate cash to customers who exercise the LPG. While this process ceases if and when the other firms in the industry raise their price to the level posted by the price leader, in the meantime it forces the price leader to forego profits or perhaps even incur losses.<sup>139</sup> Under this latter circumstance, only well-capitalized firms could serve as price leaders, since other firms might lack the capital base required to sustain these initial losses. Therefore, industries that contain well-capitalized firms capable of serving as price leaders provide a more fertile environment for collusion via LPGs than other markets.

Similarly, potential price leaders might have greater incentive to initiate LPGs in industries that feature economies of scale. This is because the expense of paying the rebates required by the LPG would be offset by the drop in per-unit costs realized as sales volume increased. In effect, by gaining a large share of the market by offering the lowest net price, the firm offering the LPG could enjoy economies of scale which provide a serious competitive

advertisements mentioned previously both follow this practice. *See supra* note 2.

<sup>137</sup> Actually, the requirement might not be absolutely necessary, since in many retailing industries the firm offering the LPG could verify price claims by walking into its rivals' stores and reading the price tags. However, in many retailing fields, such as automobile retailing, this would not work since posted prices do not necessarily reflect the prices at which transactions take place.

<sup>138</sup> The fact that firms offering LPGs so willingly accept the validity of prices provided in competitors' advertisements is surprising given that most advertisements do not constitute legally binding offers to sell. *See* RESTATEMENT (SECOND) OF CONTRACTS § 26 cmt. b (1981). Note, however, that an LPG published as part of an advertisement probably does constitute a legally binding offer to establish a unilateral contract. This is because the LPG contains sufficient words of commitment, while typical advertisements do not. *See id.*; *cf. id.* illus. 1 (stating that a detailed advertisement containing words expressing the advertiser's commitment to sell constitutes a legally binding offer). The exact legal status of LPGs, however, has apparently never been litigated.

<sup>139</sup> The exact outcome would depend on the cost structure of the price leader relative to the rest of the industry.

advantage. In this situation, the price leader would be more likely to initiate the collusive process because the foregone profits or losses incurred from doing so would be smaller than in an industry without economies of scale.<sup>140</sup>

The final industry characteristic that complements efforts to use LPGs to facilitate tacit collusion is perhaps the least obvious. If firms that successfully move prices from competitive to collusive levels are denied the additional profits generated by this collusion, then they will be reluctant to incur the initial costs and potential legal liability associated with cartelization. Unfortunately for potential cartel members, this seemingly contradictory outcome is possible in many industries. Take, for example, the consumer electronics retailing industry. Suppose that a silent cartel has managed to use LPGs to push prices up to collusive levels and deter new entry. The suppliers to the firms in the cartel will notice that the demand for their products has dropped. Upon investigation, these suppliers might notice the abnormal profits earned by cartel members; the suppliers could then raise their own prices, appropriating the supracompetitive profits earned by the cartel. In essence, even if Circuit City, Wiz Home Entertainment Centers, and Silo manage to cartelize the consumer electronics retailing industry, Sony and Technics could end up enjoying the fruits of the cartel's labor! As a result, in industries where this profit dissipation is possible, firms might forego attempting to collude altogether, whether through LPGs or other means.<sup>141</sup>

Though the previous few paragraphs have described various industry characteristics that increase the effectiveness of LPGs in facilitating tacit collusion, one market characteristic was notably absent—the number of firms. Much of the literature on facilitating devices assumes that these practices can only be used for collusive purposes in oligopolistic markets.<sup>142</sup> Admittedly, the actions

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<sup>140</sup> If the industry featured very large economies of scale, however, the price leader would be better off trying to undercut its rivals' prices and establish a natural monopoly.

<sup>141</sup> Essentially, vertical profit dissipation is likely to result when there are no substitutes for the products provided by specific suppliers. In such situations, the suppliers can raise the prices charged to retailers, knowing that the retailers will continue to demand roughly the same quantity of goods.

<sup>142</sup> See Clark, *supra* note 5, at 893 (discussing oligopolistic coordination, but not collusion by many firms); Hay, *supra* note 40 (considering only oligopolistic market structures throughout his article); Salop, *supra* note 5, at 265 (titling his article "Practices that (Credibly) Facilitate Oligopoly Co-ordination"); Simons, *supra* note 54, at 635 (noting the effect of multiple facilitating practices in an oligopolistic market).

needed to complete the tasks required of any successful cartel become more difficult to coordinate as the number of firms in the cartel grows. By simplifying each of these three tasks, however, LPGs allow tacit collusion to take place even in normally competitive markets with large numbers of firms. In fact, the previously outlined process for using LPGs to facilitate tacit collusion requires relatively little coordination. Instead, once one firm has decided to act as the price leader, the other firms must merely respond rationally. In this sense, each of the firms acts independently in playing out its role in the collusive cartel. This feature complicates efforts to prosecute cartels using LPGs, since parallel behavior by firms within an industry would often not be considered to constitute an "agreement" to restrain trade if the firms acted independently. The Sherman Act's "agreement" requirement is discussed in detail in the following section.

## V. LEGAL ANALYSIS

### A. Overview of Laws Prohibiting Collusion

Collusion is prohibited under federal law by two statutes: the Sherman Act<sup>143</sup> and the Federal Trade Commission Act ("FTC Act").<sup>144</sup> These two antiquated statutes, however, were enacted long before scholars and regulators understood the full potential of tacit collusion.<sup>145</sup> As a result, efforts by courts to apply these laws to cases involving tacit collusion "have been largely unsuccessful, producing a confused series of opinions that provide little guidance on when antitrust liability will be found."<sup>146</sup> In response to this uncertainty, legal scholars have produced a panoply of articles detailing legal theories that discuss how tacit collusion falls within the ambit of the Sherman or FTC Acts.<sup>147</sup> Lawmakers have

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<sup>143</sup> 15 U.S.C. §§ 1-7 (1988).

<sup>144</sup> 15 U.S.C. §§ 40-45 (1988).

<sup>145</sup> The Sherman and FTC Acts were enacted in 1890 and 1914 respectively. See Sherman Act, ch. 647, secs. 1-8, 26 Stat. 209 (1890); Federal Trade Commission Act, ch. 311, secs. 1-11, 38 Stat. 717 (1914).

<sup>146</sup> Hay, *supra* note 40, at 465.

<sup>147</sup> See, e.g., Mark D. Anderson, *Vertical Agreements Under Section 1 of the Sherman Act: Results in Search of Reasons*, 37 U. FLA. L. REV. 905 (1985); Clark, *supra* note 5; Michael Conant, *Consciously Parallel Action in Restraint of Trade*, 38 MINN. L. REV. 797 (1954); Lee Goldman, *Oligopoly Policy and the Ethyl Corp. Case*, 65 OR. L. REV. 73 (1986); Hay, *supra* note 40; Richard S. Markovits, *Oligopolistic Pricing Suits, the Sherman Act, and Economic Welfare, Part IV: The Allocative Efficiency and Overall Desirability of Oligopolistic Pricing Suits*, 28 STAN. L. REV. 45 (1975); Richard A. Posner, *Oligopoly and*

proposed legislation to clarify prohibitions on collusion.<sup>148</sup> Regulators have also introduced novel approaches to uncover and prosecute tacit collusion.<sup>149</sup> Despite these actions, the applicability of the Sherman and FTC Acts to situations where firms collude through facilitating practices is still unresolved.<sup>150</sup>

The current law provides three distinct tracks for prosecuting tacit cartels. First, the cartel can be deemed a conspiracy in restraint of trade in violation of section 1 of the Sherman Act.<sup>151</sup> Second, the cartel can be prosecuted for violating the anti-monopoly provisions in section 2 of the Sherman Act.<sup>152</sup> Finally, the facilitating practices used to establish the cartel may be enjoined if they constitute unfair methods of competition in violation of section 5 of the FTC Act.<sup>153</sup> Unfortunately, reaching collusive outcomes attained via LPGs would be difficult under any of these three approaches. This is because the evidence of collusion provided by LPGs is largely incongruent with that demanded by the three tracks. In fact, this problem appears to vitiate any attempt to prosecute collusive outcomes established by using LPGs under either section of the Sherman Act. The FTC Act, in contrast, might offer hope, particularly if the Federal Trade Commission adopts a clear

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*the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562 (1969); Simons, *supra* note 54; Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655 (1962).

<sup>148</sup> See WHITE HOUSE TASK FORCE ON ANTITRUST POLICY, REPORT OF THE WHITE HOUSE TASK FORCE ON ANTITRUST POLICY app. (1969), *reprinted in* ANTITRUST L. & ECON. REV., Winter 1968-69, at 11, 64-70 (suggesting that oligopolistic industries should be subdivided to prevent firms from gaining market share through collusive means, whether tacit or overt); S. 1959, 94th Cong., 1st Sess. (1972), 121 CONG. REC. 19,221-24 (1975) (establishing a presumption of monopoly power if a corporation earned an average return on net worth after taxes in excess of 15% for five consecutive years, regardless of any evidence of covert or overt collusion); *see also* SULLIVAN, *supra* note 95, §§ 128-29 (providing an overview of these proposed statutes).

<sup>149</sup> In 1978, for example, the Antitrust Division of the Justice Department announced that it would consider lenient treatment for corporations and executives who voluntarily report violations of antitrust laws to the Division. *See* MARSHALL C. HOWARD, ANTITRUST AND TRADE REGULATION 69-70 (1983). When this approach failed to bring the desired response, the Justice Department adopted a toll-free price-fixing hotline, which it advertised on television. *See id.* at 70.

<sup>150</sup> *See* 6 AREEDA, *supra* note 54, ¶ 1436(a), at 238 (noting that attempts to determine if the interdependent adoption of facilitating practices is within the reach of the Sherman or FTC Acts "draw no certain answer from either principle or precedent").

<sup>151</sup> *See* 15 U.S.C. § 1 (1988).

<sup>152</sup> *See id.* § 2.

<sup>153</sup> *See id.* § 45(a).

standard identifying the situations in which LPGs will be prohibited. The logic underlying these conclusions is described in the following sections, which review the applicability of each of the three approaches for prosecuting tacit collusion to situations involving LPGs.

## B. Section 1 of the Sherman Act

### 1. The Rule of Reason

Section 1 of the Sherman Act serves as the primary mechanism for combating price-fixing in the American economy.<sup>154</sup> The wording of the section provides a very broad prohibition on conspiracies and other practices that can raise prices to supra-competitive levels:<sup>155</sup> "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal."<sup>156</sup> Undeterred by the seemingly boundless scope of this prohibition, early court decisions applied section 1 of the Sherman Act literally.<sup>157</sup> Eventually, however, courts replaced this extreme reading with a more measured interpretation. Under this alternative approach, which governs the application of section 1 today, *some* contracts, combinations, and conspiracies are presumed to be illegal, while others are prohibited only when they cause an unreasonable restraint of trade. Actions which fall into the first category are said to be *per se* violations of the Sherman Act.<sup>158</sup> Overt agreements between competitors fixing prices, for example, constitute *per se* violations.<sup>159</sup> This is because such agreements

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<sup>154</sup> See 2 EARL W. KINTNER, *FEDERAL ANTITRUST LAW* § 10.2 (1980) ("Price-fixing is usually attacked under Section 1 of the Sherman Act and is the best known antitrust violation.").

<sup>155</sup> See *id.* § 9.1 (describing the section as "all-embracing").

<sup>156</sup> 15 U.S.C. § 1 (1988).

<sup>157</sup> See, e.g., *Northern Sec. Co. v. United States*, 193 U.S. 197, 331 (1904) (stating that section 1 of the Sherman Act "does embrace and declare to be illegal every contract, combination or conspiracy, in whatever form, of whatever nature, and whoever may be parties to it, which directly or necessarily operates in restraint of trade or commerce" (emphasis added)).

<sup>158</sup> See SULLIVAN, *supra* note 95, §§ 67, 70, 72 (outlining the *per se* doctrine).

<sup>159</sup> See *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 223 (1940) ("Under the Sherman Act a combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity in interstate or foreign commerce is illegal *per se.*"); see also 2 KINTNER, *supra* note 154, § 10.2 (providing historical background on price-fixing).



clearly evidence a specific intent to restrict trade and offer no offsetting social benefit.<sup>160</sup> In contrast, actions which have both anticompetitive tendencies and potential offsetting benefits fall into the latter category. Such actions are governed by the "rule of reason."<sup>161</sup> Under this doctrine, these activities are only illegal if they have a net anticompetitive effect.<sup>162</sup>

Having defined the per se doctrine and the rule of reason, one must ask which should apply to situations where prices have been fixed through the use of facilitating practices, like LPGs. While price-fixing is usually a per se violation, facilitation practices differ from overt anticompetitive agreements by offering offsetting benefits. These benefits should be balanced against their collusive potential before being held illegal.<sup>163</sup> Accordingly, most scholars argue that the rule of reason should apply to cases involving facilitating practices.<sup>164</sup> Courts have generally heeded this advice.<sup>165</sup>

<sup>160</sup> See *Standard Oil Co. v. United States*, 221 U.S. 1, 65 (1911) (agreements between competitors fixing prices are in "nature," "character," and "necessary effect" adverse to competition and, therefore, subject to a "conclusive presumption" of invalidity); see also *United States v. Trenton Potteries Co.*, 273 U.S. 392, 397 (1927) ("The aim and result of every price-fixing agreement, if effective, is the elimination of one form of competition.").

<sup>161</sup> See SULLIVAN, *supra* note 95, §§ 64-66 (explaining the development of the rule of reason).

<sup>162</sup> The rule of reason was first established by the Supreme Court in *Standard Oil*, 221 U.S. at 58-60 (noting that the Sherman Act reached all "undue restraint[s]" on trade).

<sup>163</sup> See *supra* part III.C (describing the benefits provided by various facilitating practices).

<sup>164</sup> See Clark, *supra* note 5, at 917 (analyzing facilitating practices under the rule of reason because the per se doctrine appears inappropriate); Simons, *supra* note 54, at 626 n.148 (noting that courts should be expected to evaluate competitor-based formula pricing clauses according to the rule of reason and not the per se doctrine because the courts have not had significant exposure to such clauses and because "the clauses provide efficiencies in many cases and should not automatically be presumed to be anticompetitive"); see also 6 AREEDA, *supra* note 54, ¶ 1407(f), at 38 (noting that certain facilitating practices, including price protection clauses, offer benefits to buyers and therefore are "not totally without redeeming virtue"; as a result, "we are not entitled to presume that the seller contracting on these terms must inevitably have a 'specific intent' to control market prices through improper means").

<sup>165</sup> See *Theatre Enters., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 544 (1954) (holding that public statements circulated among rival film distributors are not a per se violation of antitrust laws). In some situations, however, the courts have applied the per se doctrine to cases involving facilitating practices. See *United States v. Container Corp. of America*, 393 U.S. 333, 337 (1969) (utilizing the per se doctrine in a case involving interseller price verification). The *Container Corp.* case, however, can be distinguished from other facilitating practices cases. In *Container Corp.* the

Thus, courts hearing claims of tacit collusion facilitated through the use of LPGs would be apt to apply the rule of reason.<sup>166</sup> In order to prevail at trial, the plaintiff in such cases must show that the anticompetitive impact of the LPGs exceeds their efficiency-enhancing effects. In situations where LPGs actually have been used to establish collusive outcomes, however, this should be readily apparent, particularly given the ability of LPGs to sustain supra-competitive profit levels for long periods of time.<sup>167</sup>

## 2. Agreement Requirement

Other aspects of section 1, however, would hinder its application to cartels using LPGs. Specifically, a plaintiff seeking to prove a violation of this section must show that the members of the cartel had an agreement to raise prices to supracompetitive levels.<sup>168</sup> This agreement requirement stems from the wording of section 1.<sup>169</sup> Recall that the section prohibits contracts, combina-

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court found an agreement between manufacturers of corrugated containers "to furnish price information whenever requested." *Id.* at 335. As a result, the majority treated the case as an overt price-fixing case rather than one merely involving facilitating practices. *See id.* at 337. Justice Fortas, concurring, took issue with the application of the *per se* doctrine to interseller price verification, although his application of the rule of reason also found the practices in violation of § 1. *See id.* at 338-40 (Fortas, J., concurring).

<sup>166</sup> *See* Simons, *supra* note 54, at 626 n.148 (suggesting that the rule of reason applies to all types of competitor-based pricing schemes, a category that would include LPGs); *see also* 6 AREEDA, *supra* note 54, ¶ 1436(d) (noting that the sanctions appropriate to price-fixing are inappropriate to situations involving facilitating practices).

<sup>167</sup> *See supra* part IV.B.1. Note that in situations where a price leader attempts to use LPGs to prevent prices from continuing a natural downward trend, perhaps due to learning curves or advances in technology, *see supra* note 69 and accompanying text, but does not attempt to increase prices, the anticompetitive impact of the policies will be difficult to assess. In these instances, however, reference can be made to historical price patterns and measures of industry profit. *See* SCHERER, *supra* note 30, at 182 (comparing price changes after the adoption of facilitating practices with those before in the context of the GE-Westinghouse turbogenerator investigation and noting how the pattern of price movements changed after the introduction of facilitating practices); *cf.* E.I. du Pont de Nemours & Co. v. FTC, 729 F.2d 128, 132 (2d Cir. 1984) (comparing the profits of accused cartel members with the average return in the industry in the context of FTC Act litigation).

<sup>168</sup> *See* 6 AREEDA, *supra* note 54, ¶¶ 1409-15 (providing an exhaustive analysis of the agreement requirement).

<sup>169</sup> While the wording of the section provides the primary motivation for requiring proof of an agreement to find a violation of § 1, scholars have noted that there is also a strong policy reason for this practice. Consider an oligopolistic industry in which the firms have managed to raise prices to collusive levels without any agreement, either tacit or overt, and without adopting any facilitating practices. This might occur

tions, and conspiracies in restraint of trade.<sup>170</sup> By definition, each of these items requires two or more actors.<sup>171</sup> Furthermore, the legal meaning given to each of these terms demands that the actors cooperate.<sup>172</sup>

Given the illegality of collusion, cartel members have a strong incentive to hide any evidence of an agreement. As a result, direct evidence of collusion is seldom present, and proof of an agreement must be inferred from indirect evidence.<sup>173</sup> Sometimes indirect evidence strongly implies that an overt agreement to fix prices existed. The plaintiff might show, for example, that the defendants communicated with each other via phone or mail or that they attended meetings together.<sup>174</sup> If the agreement among the cartel

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if the firms in the industry realize the interdependence of their actions and adjust their output accordingly. See 6 AREEDA, *supra* note 54, ¶ 1432(b). Scholars say that such outcomes arise through pure interdependence or pure oligopolistic coordination. See *id.*; Clark, *supra* note 5, at 893. Because these equilibria display the same supracompetitive prices and underprovision of products associated with collusive outcomes constructed through facilitating practices or overt collusion, they are just as harmful to society. See 6 AREEDA, *supra* note 54, ¶ 1432(b). Unfortunately, they are much more difficult, if not impossible, to prosecute. This is true for two reasons. First, establishing a clear rule as to when liability for antitrust violations arises is difficult. Second, even if a court could create a clear rule providing guidance to firms, remedying violations would be extremely tough. "It has been argued that a suitable injunction need only tell a defendant to stop 'agreeing' through tacit price coordination. . . . In this context, however, that is equivalent to an injunction compelling marginal-cost pricing." *Id.* ¶ 1432(d)(5), at 203 (footnote omitted). Courts, though, are not considered proper forums for continuously monitoring and enforcing price controls in an industry. See *id.* These two criticisms do not, however, apply to situations involving tacit collusion and facilitating practices. In these situations, liability can be defined to accrue upon the adoption of the facilitating practices. Furthermore, a simple injunction prohibiting the facilitating practices can serve as a fair remedy. See *id.* ¶ 1436(a).

<sup>170</sup> See 15 U.S.C. § 1 (1988).

<sup>171</sup> See 2 KINTNER, *supra* note 154, § 9.7 (stating that "it is well-established that two or more persons are necessary to form an actionable contract, combination or conspiracy in restraint of trade"). Section 2 of the Sherman Act, in contrast, can reach anticompetitive activities undertaken by a single actor. See *id.* § 9.2.

<sup>172</sup> See *id.* § 9.3 (defining "contract" as "a binding agreement, express or implied"; "combination" as "the union or association of two or more persons to accomplish a common purpose"; and "conspiracy" as "a partnership in crime").

<sup>173</sup> See *id.* § 9.17.

<sup>174</sup> See 6 AREEDA, *supra* note 54, ¶ 1430(a) (analyzing direct verbal communication as evidence of overt collusion). Meetings between industry leaders have been held to imply an illegal agreement. See *Volasco Prods. Co. v. Lloyd A. Fry Roofing Co.*, 308 F.2d 383, 388 (6th Cir. 1962) (noting that the defendant's attendance at several industry meetings was a factor to be considered in the antitrust analysis), *cert. denied*, 372 U.S. 907 (1963); *Pittsburgh Plate Glass Co. v. United States*, 260 F.2d 397, 400 (4th Cir. 1958) (discussing the effect that personal meetings between competitors at an industry convention had on a subsequent price increase in that industry), *aff'd*, 360

members is tacit, however, then one must look to different kinds of indirect evidence. Parallel conduct among firms in the same industry, called "conscious parallelism," is often used as circumstantial evidence of a tacit agreement.<sup>175</sup> The Supreme Court has clearly stated, however, that conscious parallelism alone is not sufficient to establish a violation of section 1 of the Sherman Act.

The crucial question is whether respondents' conduct toward petitioner stemmed from independent decision or from an agreement, tacit or express. To be sure, business behavior is admissible circumstantial evidence from which the fact finder may infer agreement. But this Court has never held that proof of parallel business behavior conclusively establishes agreement or, phrased differently, that such behavior itself constitutes a Sherman Act offense. Circumstantial evidence of consciously parallel behavior may have made heavy inroads into the traditional judicial attitude toward conspiracy; but "conscious parallelism" has not yet read conspiracy out of the Sherman Act entirely.<sup>176</sup>

Lower courts have also followed this view.<sup>177</sup> If the parallel conduct is contrary to the economic self-interest of the firms engaging in such conduct, however, courts afford greater weight to the inference of an agreement.<sup>178</sup> Some courts *require* both

U.S. 395 (1959); *see also* 6 AREEDA, *supra* note 54, ¶ 1417(c)-(d) (discussing unexplained and secret meetings between competitors).

<sup>175</sup> *See* 2 KINTNER, *supra* note 154, § 9.18 (describing conscious parallelism).

<sup>176</sup> *Theatre Enters., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 540-41 (1954) (citations omitted).

<sup>177</sup> *See* *Paul Kadair, Inc. v. Sony Corp. of Am.*, 694 F.2d 1017, 1027 n.27 (5th Cir. 1983); *Proctor v. State Farm Mut. Auto. Ins. Co.*, 675 F.2d 308, 327 (D.C. Cir.), *cert. denied*, 459 U.S. 839 (1982); *Weit v. Continental Ill. Nat'l Bank & Trust Co.*, 641 F.2d 457, 462 (7th Cir. 1981), *cert. denied*, 455 U.S. 988 (1982); *Granddad Bread, Inc. v. Continental Baking Co.*, 612 F.2d 1105, 1112 (9th Cir. 1979), *cert. denied*, 449 U.S. 1076 (1981); *see also* 6 AREEDA, *supra* note 54, ¶ 1434(a), at 213 ("[T]he courts have been very clear that mere parallelism, including interdependent conscious parallelism cannot support a conspiracy finding unless there are additional or 'plus' factors.").

<sup>178</sup> *See* *Bogosian v. Gulf Oil Corp.*, 561 F.2d 434, 446 (3d Cir. 1977) (noting that the failure of oil companies to market gasoline to their competitor's lessees is against their independent self-interest and can only be explained by a mutual understanding between the companies), *cert. denied*, 434 U.S. 1086 (1978); *Milgram v. Loew's, Inc.*, 192 F.2d 579, 583 (3d Cir. 1951) (noting that a distributor acting in contradiction of its self-interest "strengthens considerably the inference of conspiracy"), *cert. denied*, 343 U.S. 929 (1952). Some courts will deny a defendant's motion for summary judgment if the plaintiff has demonstrated that the defendant engaged in parallel practices contrary to its independent economic self-interest. *See, e.g.,* *Admiral Theatre Corp. v. Douglas Theatre Co.*, 585 F.2d 877, 884 (8th Cir. 1978) ("Only where the pattern of action undertaken is inconsistent with the self-interest of the individual actors, were they acting alone, may an agreement be inferred solely from such parallel

evidence of parallel conduct against self-interest and proof that the defendant had a motivation to enter into the agreement.<sup>179</sup>

The minimal judicial weight assigned to evidence of parallel conduct which is not contrary to the firms' self-interest makes prosecuting collusive cartels established through LPGs very difficult. By rationally adopting LPGs that only incidentally construct a collusive equilibrium,<sup>180</sup> each firm in the tacit cartel could tell a plausible story as to why the adoption of the LPG was in its own economic self-interest. The price leader, for example, could merely claim that it adopted the LPG and raised its posted price in an effort to establish the lowest net price and increase market share. The follower firms, in turn, could claim that they had to adopt LPGs and raise their posted prices in order to regain market share and revenue from the price leader. In essence, the actions of each member of the cartel appear perfectly rational due to the operation of the LPGs. As a result, efforts to infer an agreement from the parallel adoption of LPGs and increases in prices associated with the movement toward the collusive equilibrium would fail.

Some scholars have noted that in addition to or in the absence of evidence that the parallel conduct was contrary to the economic self-interest of market participants, the plaintiff in a section 1 action may introduce other "plus factors" to imply the existence of an agreement among the firms.<sup>181</sup> In the context of tacit collusion, facilitating practices may be considered plus factors.<sup>182</sup> This assists in the prosecution of many tacit cartels, since they often

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action." (citing *First Nat'l Bank v. Cities Serv. Co.*, 391 U.S. 253, 279-80 (1968)); *Joseph E. Seagram & Sons, Inc. v. Hawaiian Oke & Liquors, Ltd.*, 416 F.2d 71, 84-85 (9th Cir. 1969) (agreeing with the plaintiff that there was enough other evidence in the case to sustain a finding of conspiracy), *cert. denied*, 396 U.S. 1062 (1970).

<sup>179</sup> See, e.g., *Schoenkopf v. Brown & Williamson Tobacco Corp.*, 637 F.2d 205, 208 (3d Cir. 1980) ("To establish consciously parallel behavior, a plaintiff must show (1) that the defendants' business behavior was parallel, and (2) that the defendants were conscious of each other's conduct and that their awareness was an element in their decisional process."); *Venzie Corp. v. United States Mineral Prods. Co.*, 521 F.2d 1309, 1314 (3d Cir. 1975) ("[The] elements generally considered critical in establishing conspiracy from evidence of parallel business behavior [are]: (1) a showing of acts by defendants in contradiction of their own economic interests, and (2) satisfactory demonstration of a motivation to enter an agreement." (citations omitted)).

<sup>180</sup> See *supra* notes 102-09 and accompanying text.

<sup>181</sup> See 6 AREEDA, *supra* note 54, ¶¶ 1433-34 (describing how courts evaluate cases with and without "plus factors").

<sup>182</sup> See *id.* ¶ 1434(e), at 221 (noting that facilitating practices "certainly bear on the economic consequences of oligopoly and can affect the proper legal treatment of it").

utilize a variety of facilitating practices in combination.<sup>183</sup> The use of LPGs alone, however, offers greater collusive power than several other facilitating practices combined.<sup>184</sup> As a result, any cartel wishing to collude by using LPGs would not need to adopt any other facilitating practices.

Furthermore, while there are some "plus factors" that are distinct from facilitating practices, most of these apply in only limited situations. One scholar, for example, lists several "plus factors" including: evidence of "correspondence, meetings, or other communications providing the alleged conspirators with an opportunity to agree; failure to offer justifications for the parallel conduct; prior illegal conduct; or uniformity that would be extremely improbable absent agreement."<sup>185</sup> Obviously, in a tacit collusion case, evidence of correspondence, meetings, or other communication will not exist. As was explained above, in cases involving LPGs, every firm in the cartel can provide a justification for the parallel actions in the industry. In addition, prior illegal conduct is probably seldom present, so its value as a plus factor is very limited. The last plus factor listed above, unexplained uniformity, also does not aid in the prosecution of cartels using LPGs. This is because LPGs are most likely to be used in industries where the product is very homogeneous by nature.<sup>186</sup> For example, in any type of retailing environment in which the seller does not manufacture the goods, all firms in the industry will offer identical products. Put another way, a specific model of Sony Walkman is the same product whether it is purchased from Silo or Circuit City.

### 3. Proposals for Reform

As the paragraphs above make clear, the agreement requirement demanded by section 1 of the Sherman Act complicates efforts to use this piece of legislation to prosecute tacit collusion. This effect is heightened in cases involving LPGs, a fact that the "plus factor"

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<sup>183</sup> See *supra* part III.B (describing collusion by GE and Westinghouse in the turbogenerator industry). In the turbogenerator example, GE and Westinghouse both used several facilitating practices in concert, including the adoption of MFNs, the publication of price books, and advance notice of price changes. See *supra* text accompanying notes 86-88.

<sup>184</sup> See *supra* notes 118-21 and accompanying text.

<sup>185</sup> Goldman, *supra* note 147, at 79-80 (footnotes omitted).

<sup>186</sup> See *supra* notes 124-25 and accompanying text.

analysis fails to mitigate. In response to section 1's weaknesses, many scholars have proposed new legal theories that would increase the section's ability to prevent tacit collusion. While none of these proposals offers a workable solution to the problem of using section 1 to prosecute tacit collusion sustained by LPGs, two are worthy of comment.

a. *Posner*

Of the two proposed legal theories for strengthening section 1 considered here, Judge Richard Posner's is the more radical. Posner suggests extending the legal definition of "agreement" to include any type of interdependent decisionmaking in oligopolistic markets.<sup>187</sup> In essence, Posner argues that interdependent decision-making constitutes an "agreement to agree."<sup>188</sup> He apparently has a broad view of interdependent decisionmaking, as revealed by the following example:

It must be emphasized that tacit collusion is not an unconscious state. If the firm's sales manager recommends that the firm offer a wider variety of products in order to exploit consumer demand more effectively, and the financial vice-president recommends against that course on the ground that it will make it more difficult for the industry to maintain "healthy" prices, the president can be in no doubt of the significance of his actions if he adopts the financial vice-president's recommendation.<sup>189</sup>

This passage suggests that Posner believes that competing firms form an "agreement" every time the executives of one firm consider the impact of their actions on the broader industry, rather than merely on their own firm. Under this analysis all competitor-based pricing policies, including LPGs, would constitute agreements for

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<sup>187</sup> See Posner, *supra* note 147, at 1575-78. Note that other scholars have also proposed extending the definition of agreement to reach various types of interdependent decisionmaking. See, e.g., Conant, *supra* note 147, at 815-17 ("[T]he scope of the Sherman Act, condemning combinations by trust or otherwise, should be broad enough to encompass collusion restraints resulting merely from the adjustments of the firms in a market to each others policies."); Markovits, *supra* note 147, at 57-58 (stating that it would be desirable for the government to educate the public on the equivalence of implicitly and explicitly communicated anticompetitive threats). Finally, at least one scholar proposes redefining agreement to include pure oligopolistic interdependence, but argues that the agreement should not be deemed illegal. See Turner, *supra* note 147, at 663-72.

<sup>188</sup> Posner, *supra* note 147, at 1576-78.

<sup>189</sup> RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE 74-75 (1976).

section 1 purposes, since the net price charged by any firm honoring such a policy depends on the prices charged by its rivals. As a result, Posner's reform would overcome the difficulties associated with finding an agreement in situations where LPGs have been used for collusive purposes.

Posner's proposal has been widely criticized by other scholars,<sup>190</sup> notwithstanding the suggestion by some courts that the definition of agreement could be extended to include interdependent decisionmaking.<sup>191</sup> Essentially, these critics offer three objections to Posner's proposition. First, identifying instances where prices were above competitive levels due to interdependent decisionmaking would be extremely difficult. Since by definition these instances lack facilitating practices, which can often be used to identify cartelized industries, Posner's proposal would require antitrust enforcement officials to compare prices with each firm's marginal costs.<sup>192</sup> While theoretically sound, this approach is virtually impossible to apply. In fact, in other areas of antitrust law, many courts have already given up trying to calculate marginal costs and instead use estimates of average variable costs.<sup>193</sup>

<sup>190</sup> See, e.g., 6 AREEDA, *supra* note 54, ¶ 1432 (arguing that antitrust laws should not be extended to prohibit pure oligopolistic interdependence); Goldman, *supra* note 147, at 83-90 (suggesting that Posner underestimates the difficulty of applying his approach); Simons, *supra* note 54, at 629-30 (criticizing Posner).

<sup>191</sup> See, e.g., *Bogosian v. Gulf Oil Corp.*, 561 F.2d 434, 446-47 (3d Cir. 1977) (stating that the theory should be tested on a more fully developed factual record), *cert. denied*, 434 U.S. 1086 (1978); *Modern Home Inst., Inc. v. Hartford Accident & Indem. Co.*, 513 F.2d 102, 110 (2d Cir. 1975) ("Such parallel conduct is consistent with independent competitive decisions or at most reflects a non-consensual decision not to compete."); *First Am. Title Co. v. South Dakota Land Title Ass'n*, 541 F.Supp. 1147, 1155 (D.S.D. 1982) ("Plaintiffs must be able to show, through additional facts, that the conscious parallel actions . . . were concerted and interdependent."), *aff'd*, 714 F.2d 1439 (8th Cir. 1983), *cert. denied*, 464 U.S. 1042 (1984). Goldman lists these cases as potential support for Posner's proposition, but then notes that they involve interdependent conduct influencing nonprice items. This is significant, since courts can easily enjoin this type of behavior but cannot readily enforce price controls. See Goldman, *supra* note 147, at 83 & n.35; see also *supra* note 169 and *infra* notes 194-95 and accompanying text (discussing the policy arguments against extending the application of antitrust laws to situations involving pure oligopolistic interdependence). Furthermore, Sullivan notes that applying antitrust laws to interdependent pricing is consistent with the congressional distaste for supracompetitive prices which motivated Congress to pass § 1. See SULLIVAN, *supra* note 95, § 122.

<sup>192</sup> See Goldman, *supra* note 147, at 84 (noting the difficulties associated with estimating marginal costs).

<sup>193</sup> See *id.* at 85. Goldman lists several cases that have used average variable costs as a surrogate for marginal costs: *MCI Communications Corp. v. AT&T*, 708 F.2d 1081, 1114-15 (7th Cir. 1982), *cert. denied*, 464 U.S. 891 (1983); *Transamerica*



The second criticism of Posner's approach is that, even if industries with interdependent pricing could be identified, courts cannot structure an effective remedy absent the presence of facilitating practices.<sup>194</sup> A court's only apparent remedy would be to decree prices. Once prices are judicially established, the court would have to monitor compliance and consider possible changes in the stipulated prices to reflect changes in the producer's costs. As Professor Areeda wisely notes, however, "[t]he antitrust courts have long seen themselves as unsuited for the task—indeed for the continuous task—of general price control in one industry and certainly not for the many oligopolistic markets in our economy."<sup>195</sup> In cases involving facilitating practices, however, the courts can structure an effective remedy by enjoining the activities that facilitate collusion.<sup>196</sup>

The final criticism of Posner's proposal is that it requires an excessively liberal interpretation of the word "agreement." Decisions based partially on the anticipated responses of others hardly fall within the common-usage definition of agreement. Posner's broad interpretation of the agreement requirement is contrary to the well-established maxim that a contract, combination, or conspiracy in violation of section 1 requires two or more actors.<sup>197</sup> Even Professor Areeda, who subscribes to a very flexible interpretation of the Sherman Act,<sup>198</sup> refuses to consider mere interdependence a conspiracy in violation of section 1.<sup>199</sup>

*Computer Co. v. IBM*, 698 F.2d 1377, 1385 n.6 (9th Cir. 1982), *cert. denied*, 464 U.S. 955 (1983); *Richter Concrete Corp. v. Hilltop Concrete Corp.*, 691 F.2d 818, 824 (6th Cir. 1982); *Northeastern Tel. Co. v. AT&T*, 651 F.2d 76, 88 (2d Cir. 1981), *cert. denied*, 455 U.S. 943 (1982); *International Air Indus., Inc. v. American Excelsior Co.*, 517 F.2d 714, 724 (5th Cir. 1975), *cert. denied*, 424 U.S. 943 (1976). See Goldman, *supra* note 147, at 85 n.44.

<sup>194</sup> See 6 AREEDA, *supra* note 54, ¶ 1432(d)(5); see also *supra* note 169.

<sup>195</sup> 6 AREEDA, *supra* note 54, ¶ 1432(d)(5), at 203.

<sup>196</sup> See *id.*

<sup>197</sup> See 2 KINTNER, *supra* note 154, § 9.7.

<sup>198</sup> See 6 AREEDA, *supra* note 54, ¶ 1432(c)(1), at 196 (stating that "[t]he 'meaning' of a statute is not necessarily determined by what was specifically known or contemplated by the enacting legislators" and suggesting that the Sherman Act was "essentially a grant of jurisdiction to federal courts to create and develop a 'common law of antitrust'").

<sup>199</sup> See *id.* ¶ 1432(c)(1). As Areeda notes, "arguments in favor of a 'living' and 'growing' Sherman Act can be pressed too far. At the very least, possible extensions must be consistent with antitrust policy, consistent with the internal structure of antitrust doctrines and applications, and consistent with more general principles of our legal systems." *Id.* at 197.

At first glance, Posner's proposal to extend the definition of agreement to include interdependent decisionmaking seems to offer a quick fix for the Sherman Act's inability to reach tacit collusion cases, including those facilitated by LPGs. Upon closer analysis, however, the proposal's flaws become apparent. These flaws, particularly the inability to identify interdependent markets and to proffer an acceptable remedy, might explain why courts have not adopted his suggestions.

b. *Simons*

A second proposal for reaching tacit collusion under section 1 of the Sherman Act is advanced by Joseph Simons. Relative to Posner's suggestions, Simons's proposal is both less radical and less troublesome. Moreover, if adopted, Simons's approach could actually extend section 1 so that it offers limited protection against cartels established using LPGs.

Specifically, Simons notes that while section 1 of the Sherman Act prohibits "contracts" in restraint of trade, nothing in the act limits this term to the horizontal contracts between competitors in an industry.<sup>200</sup> Most analyses of the agreement requirement in section 1 focus on finding such a horizontal agreement between competitors.<sup>201</sup> When firms adopt competitor-based pricing clauses, however, they create vertical agreements between buyers and sellers.<sup>202</sup> Consider, for example, an MFN embedded within a long-term supply contract. In this situation the clause would constitute a legally binding agreement; the seller would be required to charge the buyer whose contract has such a clause a price no greater than that charged to any other customer.<sup>203</sup> The adoption of MFNs by many firms in an industry may engender collusive results.<sup>204</sup> If collusion does in fact lift prices to supracompetitive levels, Simons argues that section 1 of the Sherman Act applies. Under Simons's analysis, section 1 liability is predicated on the agreement between the buyer and seller contained in the MFN, not

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<sup>200</sup> See Simons, *supra* note 54, at 630; *id.* at 631 n.183 ("I am aware of no policy basis for limiting agreements for Sherman Act purposes only to horizontal relationships.").

<sup>201</sup> See *supra* part V.B.2.

<sup>202</sup> See Simons, *supra* note 54, at 630-31.

<sup>203</sup> Most-favored-nation clauses were defined and described *supra* notes 62-69 and accompanying text.

<sup>204</sup> See *supra* notes 62-69 and accompanying text.

on some elusive, ephemeral agreement between competitors to conspire.<sup>205</sup>

Simons's proposal has several strengths. First, it is elegant. In contrast to Posner, who attempts to expand the reach of section 1 by grabbing an ax and chopping away at the legal oak formed by the existing agreement requirement, Simons uses a scalpel to perform cosmetic surgery on the demand for an agreement. In fact, Simons would argue that his proposal is not even this invasive, for its second strength is its congruence with case law. In particular, Simons cites two United States Supreme Court cases as support for his proposition that section 1 liability can accrue from vertical agreements. In the first case, *FTC v. Motion Picture Advertising Service Co.*,<sup>206</sup> the Court found that certain horizontal contractual provisions violated the antitrust laws. Specifically, the Court noted that the defendant movie distributor's contracts with theaters ran for up to five years and often prohibited the theaters from showing advertising films from other distributors.<sup>207</sup> These exclusive contracts were industry-wide, compelling the Court to find that they had restrained trade in a manner that fell within the prohibitions of the Sherman Act.<sup>208</sup> The actual decision, however, found a violation of the FTC Act, the statute under which the matter was litigated.<sup>209</sup> The Court, however, expressly applied the requirements of section 1 of the Sherman Act.<sup>210</sup>

The second of the two cases relied upon by Simons involves section 3 of the Clayton Act,<sup>211</sup> but he claims that the principle involved is equally applicable to section 1 of the Sherman Act.<sup>212</sup> In this second case, *Standard Oil Co. v. United States*,<sup>213</sup> the defendant oil company maintained exclusive dealing contracts with independent service stations prohibiting these stations from selling

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<sup>205</sup> See Simons, *supra* note 54, at 630-31.

<sup>206</sup> 344 U.S. 392 (1953); see Simons, *supra* note 54, at 632.

<sup>207</sup> See 344 U.S. at 393.

<sup>208</sup> See *id.* at 395.

<sup>209</sup> See *id.*

<sup>210</sup> See *id.* Note that the FTC Act may be used to enforce the prohibitions contained in the antitrust laws, including section 1 of the Sherman Act. See *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128, 136 (2d Cir. 1984). For a more detailed description of the relationship between the Sherman and FTC Acts, see *infra* notes 249-56 and accompanying text.

<sup>211</sup> 15 U.S.C. § 14 (1988).

<sup>212</sup> See Simons, *supra* note 54, at 633.

<sup>213</sup> 337 U.S. 293 (1949); see Simons, *supra* note 54, at 632-33.

gasoline supplied by any company other than the defendant.<sup>214</sup> Other oil companies adopted similar agreements; as a result, more than 98% of all gas stations were tied to a specific oil company.<sup>215</sup> Once again the Court found a violation of antitrust laws on the basis of the vertical relationship between seller and buyer.

The third advantage to Simons's proposal is that by focusing on vertical agreements, industry structure becomes irrelevant. Most analyses of the section 1 agreement requirement evaluate the possibility of construing facilitating practices within an oligopolistic market as evidence of conspiracy.<sup>216</sup> The Simons analysis, however, is equally applicable to oligopolistic or competitive markets.<sup>217</sup> This is important, since LPGs can theoretically facilitate collusive outcomes even in markets that are normally competitive.<sup>218</sup> A legal theory predicated on market power would be inapplicable to such situations.

The Simons analysis could reach collusive outcomes facilitated by LPGs by holding that the guarantees themselves constitute agreements. There are, however, several flaws with this analysis. First, in contrast to the MFN example,<sup>219</sup> LPGs are usually not embedded within long-term contracts. Instead, they frequently appear in advertisements.<sup>220</sup> In these situations, LPGs do not constitute legally binding contracts; instead, they are offers to create a unilateral contract.<sup>221</sup> Of course, once a customer fulfills the terms of the offer, perhaps by bringing in a competitor's advertise-

<sup>214</sup> See 337 U.S. at 295-96.

<sup>215</sup> See *id.* at 295.

<sup>216</sup> See 6 AREEDA, *supra* note 54, ¶¶ 1428-36.

<sup>217</sup> See Simons, *supra* note 54, at 630-31.

<sup>218</sup> See *supra* note 142 and accompanying text.

<sup>219</sup> See *supra* notes 62-69 and accompanying text.

<sup>220</sup> See *supra* notes 1-2 and accompanying text.

<sup>221</sup> See *supra* note 138 (noting that LPGs embedded in advertisements are probably legally binding offers). Although in most instances "there will be an agreement for antitrust purposes even though the challenged arrangement falls short of forming a contract," 6 AREEDA, *supra* note 54, ¶ 1404, at 19, it is not clear that this weak standard should apply in cases where antitrust liability is premised on vertical contracts. In fact, each of the two cases cited by Simons in support of his proposition (that the Sherman Act's agreement requirement can be met by vertical agreements) contained formal, legally binding contracts. See *FTC v. Motion Picture Advertising Serv. Co.*, 344 U.S. 392, 393 (1953) (describing the contracts between producers of advertising films and theater owners); *Standard Oil Co. v. United States*, 337 U.S. 293, 295-96 (1949) (describing the exclusive supply contracts between Standard Oil Co. and independent gasoline retailers). For this reason, this Comment assumes that in the vertical context, only formal, legally binding contracts can satisfy the Sherman Act's agreement requirement.

ment evidencing a lower price, a contract is created and the guarantor is obligated to honor the terms of the LPG. As a result, the Simons analysis applies to situations involving LPGs, but only if the LPGs are actually utilized by consumers. Recall the theoretical description of the mechanics for using LPGs to facilitate tacit collusion provided earlier.<sup>222</sup> This account noted that when the price leader first introduces an LPG and raises its posted price, all consumers would invoke the guarantee in an effort to lower their net price.<sup>223</sup> Even when transaction costs were considered, most consumers would still be expected to utilize the guarantee.<sup>224</sup> Once other firms in the industry respond, however, by raising their posted price and perhaps enacting LPGs of their own, the exercise value of the LPGs falls to zero.<sup>225</sup> At this point, the collusive equilibrium is established and customers no longer exercise the LPGs.

In light of this description, the Simons proposal offers only a partial solution to the difficulty of prosecuting collusion facilitated via LPGs. During the initial movement away from the competitive price, consumers exercise the LPGs. This provides the vertical agreement upon which Simons bases section 1 liability. After the collusive equilibrium has been established, however, the LPGs are no longer enforced in the market. As a result, they merely constitute offers, not contracts or agreements. Therefore, the Simons proposal cannot apply once the collusive outcome has been reached via LPGs.<sup>226</sup>

The Simons proposal seems to suffer from one additional flaw. By relying on the Sherman Act, violations of which can be considered felonies and/or carry liability for treble damages, the Simons proposal might create over-deterrence.<sup>227</sup> In effect, some sellers might forgo offering competitor-based pricing clauses when doing so would be efficiency-enhancing in order to avoid the possibility of paying exorbitant damages and fines or facing criminal liability.

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<sup>222</sup> See *supra* part IV.A.

<sup>223</sup> See *supra* part IV.A.1.

<sup>224</sup> See *supra* note 129 and accompanying text.

<sup>225</sup> See *supra* part IV.A.3.

<sup>226</sup> Of course, if the firms in the silent cartel could not agree on the proper collusive equilibrium price due to the "bickering at the top" phenomenon described earlier, the LPGs might retain some exercise value. See *supra* text accompanying note 111. On the other hand, this could be less than the transaction costs of utilizing the guarantee, so the LPGs might remain unused.

<sup>227</sup> See 6 AREEDA, *supra* note 54, ¶ 1432(e) (noting the danger of over-deterrence created by the treble damages and criminal sanction provisions of the Sherman Act).

The Simons proposal suggests applying the rule of reason to ensure that only policies that are, on balance, anticompetitive are prosecuted successfully.<sup>228</sup> Yet Simons fails to consider that the strong punishment inflicted upon section 1 violators might combine with uncertainty to deter sellers from offering desirable price protection clauses.

#### 4. Summary of Section 1 of the Sherman Act

As was discussed earlier, section 1 of the Sherman Act seems unable to prevent effectively collusive outcomes established by LPGs.<sup>229</sup> This result is largely due to the section's agreement requirement, which is difficult to meet in situations involving tacit collusion generally and LPGs specifically. Furthermore, the legal theories proposed by Judge Posner and Mr. Simons, neither of which has been accepted by the courts, would not completely mitigate the difficulties associated with prosecuting firms offering LPGs. Therefore, one must look to other legislative provisions to find an effective weapon against the collusive results that may be brought about by LPGs.

#### C. *Section 2 of the Sherman Act*

##### 1. Statutory Language

Given the weaknesses of applying section 1, several commentators have suggested that section 2 of the Sherman Act be used to prohibit tacit collusion. Unfortunately, the application of this section to cases involving tacit collusion is extremely limited; in fact, the section seems completely inappropriate to situations involving collusion through LPGs.

Section 2 of the Sherman Act states that:

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding one million dollars if a corporation, or, if any other person, one hundred thousand dollars, or by imprisonment not exceeding

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<sup>228</sup> See Simons, *supra* note 54, at 631.

<sup>229</sup> See *supra* notes 168-86 and accompanying text.

three years, or by both said punishments, in the discretion of the court.<sup>230</sup>

In contrast to the singular, broad prohibition against restraint of trade established by section 1, section 2 of the Sherman Act delineates three separate offenses: monopolizing, attempting to monopolize, and conspiring to monopolize.<sup>231</sup> Despite this difference, the two sections are related and overlap to some extent. For example, monopolizing in violation of section 2 may also be considered an unreasonable restraint of trade in violation of section 1.<sup>232</sup> The two sections differ in that while at least two actors are required to violate section 1, a single firm or person may violate the antimonopoly provisions of section 2.<sup>233</sup>

## 2. The Three Offenses

Two of the three offenses delineated in section 2 are of little consequence to situations involving LPGs. The first provision in section 2, for example, bluntly prohibits monopolizing. This offense does not apply to tacit cartels established through LPGs, however, since "[m]onopolization refers to market dominance by a single firm, and does not apply to market dominance by a group of firms."<sup>234</sup> The third provision in section 2, which prohibits conspiracies to monopolize, does theoretically apply to cartels, but seems redundant given that any violation of this offense must necessarily constitute an unreasonable restraint of trade contrary to section 1 of the Sherman Act.<sup>235</sup> In fact, few courts have addressed this duplicity, largely because section 2 conspiracy allegations are "an afterthought appended to § 1 claims."<sup>236</sup> Two cases that have tested the bounds of the prohibition against conspiracy to monopolize, however, have both concluded that establishing a violation of this provision requires the same proof needed to establish an unreasonable restraint of trade under section 1.<sup>237</sup>

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<sup>230</sup> 15 U.S.C. § 2 (1988).

<sup>231</sup> See 2 KINTNER, *supra* note 154, § 11.1.

<sup>232</sup> See *id.* § 11.5.

<sup>233</sup> See *id.*

<sup>234</sup> *Id.* § 12.1. But see 3 AREEDA & TURNER, *supra* note 36, ch. 8E (evaluating the possibility of prosecuting shared monopoly under the prohibition against monopolizing contained in § 2).

<sup>235</sup> See 3 AREEDA & TURNER, *supra* note 36, ¶ 839 (concluding that there is no need to define the content of the § 2 conspiracy given its redundancy).

<sup>236</sup> *Id.*

<sup>237</sup> See *Belfiore v. New York Times Co.*, 826 F.2d 177 (2d Cir. 1987), *cert. denied*,

As a result, plaintiffs seeking to establish a violation of this third provision of section 2 must fulfill the agreement requirement associated with section 1—the very requirement that would vitiate any attempt to prosecute collusive outcomes established through LPGs.<sup>238</sup>

The second offense delineated in section 2, attempt to monopolize, might apply to situations involving LPGs. Specifically, Professor Areeda has constructed what he admits is a “complex and debatable” argument for applying this offense to cases involving tacit collusion.<sup>239</sup> Areeda posits a firm that expressly solicits its rivals to engage in price-fixing. If the offer is accepted, then a conspiracy is formed and the acts can be prosecuted under either section 1 or the conspiracy provision in section 2. Areeda claims, however, that if the solicitation is rejected the solicitor can be charged with attempt to monopolize even if she lacked the monopoly power usually demanded for prosecution under section 2.<sup>240</sup> The monopoly power requirement could be met by arguing that a successful solicitation would have resulted in monopoly power.<sup>241</sup> The very act of soliciting partners for a price-fixing conspiracy could be deemed illustrative of specific intent to monopolize.<sup>242</sup> Furthermore, if the solicitation is made in a collusive environment, there might be a dangerous probability that the intended monopoly will occur. In sum, each of the three “doctrinal prerequisites of attempted monopolization are satisfied: a specific intent to attain monopoly power, . . . improper conduct[,] and the dangerous probability [of success].”<sup>243</sup>

At first glance Areeda’s argument seems applicable to situations involving LPGs. Instead of the explicit solicitation to fix prices,

484 U.S. 1067 (1988); *International Distrib. Ctrs., Inc. v. Walsh Trucking Co.*, 812 F.2d 786 (2d Cir.), *cert. denied*, 482 U.S. 915 (1987); *see also* PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 839’ (Supp. 1992) (discussing the two cases).

<sup>238</sup> *See supra* notes 168-86 and accompanying text. Actually, the conspiracy provision in § 2 is even more onerous than the agreement requirement. This is because proving a violation of the conspiracy provision requires both the same proof needed to demonstrate an unreasonable restraint of trade *and* evidence of specific intent to monopolize the market or restrain trade. *See AREEDA & HOVENKAMP, supra* note 36, ¶ 839’.

<sup>239</sup> 6 AREEDA, *supra* note 54, ¶ 1407(f), at 36.

<sup>240</sup> *See id.* at 37.

<sup>241</sup> *See id.*

<sup>242</sup> *See id.*

<sup>243</sup> *Id.*



imagine that a price leader imposes an LPG and raises its posted prices. This seems analogous to the solicitation in Areeda's argument.<sup>244</sup> Unfortunately, however, the price leader's solicitation by adopting the LPG fails to imply the "specific intent" provided in Areeda's example and demanded by section 2. This is because the LPG offers offsetting benefits to buyers. Furthermore, the price leader might lack any intent to monopolize;<sup>245</sup> the adoption of the LPG could be motivated by a simple desire to increase market share. As a result, the scenario fails to satisfy the specific intent requirement required by section 2 doctrine.

In summary, Areeda's admittedly complex argument does not ease the difficulties associated with prosecuting cartels utilizing LPGs. This fact, combined with the previous observations concerning the prohibitions against monopolizing and conspiring to monopolize, means that section 2 of the Sherman Act, like section 1, cannot be used to prosecute cartels that use LPGs.

#### D. Section 5 of the FTC Act

##### 1. Statutory Wording and History

Although the Sherman Act provides a powerful weapon for fighting overt price-fixing and monopolization,<sup>246</sup> its inability to address tacit collusion cases is particularly troublesome. Section 5 of the Federal Trade Commission Act,<sup>247</sup> however, offers a glimmer of hope that collusion facilitated by LPGs can be prevented, if not punished. This section describes the history and current legal status of section 5; the next section develops a practical approach for using section 5 to reach inefficient outcomes caused by LPGs or other forms of tacit collusion.<sup>248</sup>

Section 5 of the FTC Act begins with a broad prohibition of unfair methods of competition: "Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in

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<sup>244</sup> Note that Areeda's discussion of an express solicitation takes place within the context of his analysis of facilitating practices. *See id.* This suggests that Areeda intended for his story to be generalized to include solicitations consisting of the adoption of facilitating practices.

<sup>245</sup> *See id.* (noting that MFNs are not analogous to the express solicitation described in the Areeda example).

<sup>246</sup> *See* 2 KINTNER, *supra* note 154, § 11.6 (noting that the Sherman Act "remedied some of the deficiencies of the common law").

<sup>247</sup> 15 U.S.C. § 45 (1988).

<sup>248</sup> *See infra* part V.E.

or affecting commerce, are declared unlawful."<sup>249</sup> This wording is even broader than the all-encompassing provisions of section 1 of the Sherman Act.<sup>250</sup> The section has, in fact, been interpreted in a very broad manner. For example, section 5 of the FTC Act has incorporated the entire Sherman Act.<sup>251</sup> As a result, any violation of either section 1 or section 2 of the Sherman Act also constitutes a violation of section 5 of the FTC Act.<sup>252</sup> In addition, section 5 can reach anticompetitive practices that are beyond the scope of other antitrust laws if "they have or are likely to have a substantial anticompetitive effect."<sup>253</sup> Section 5 differs from the Sherman Act in other ways as well. For example, the remedies for violating the Sherman Act include treble damages, large fines, and criminal prosecution at the felony level.<sup>254</sup> The FTC Act, in contrast, is "wholly civil in nature."<sup>255</sup> As a result, it "invokes no criminal sanctions or stigmas, occasions no private damages, and is brought into play only by public authorities acting in the public interest."<sup>256</sup>

Because of these factors, section 5 of the FTC Act is particularly well-suited for addressing facilitating practices and other forms of tacit collusion.<sup>257</sup> In fact, it has often successfully served this purpose. In *Triangle Conduit & Cable Co. v. FTC*,<sup>258</sup> for example, the Federal Trade Commission applied section 5 to stop a conspiracy facilitated by delivered pricing schemes. While the Commission failed to find that two of the defendants were part of a conspiracy, it still prohibited them from using delivered pricing by declaring such schemes unfair methods of competition.<sup>259</sup> On appeal, the Seventh Circuit upheld the FTC's decision and seemed to support

<sup>249</sup> 15 U.S.C. § 45(a)(1) (1988).

<sup>250</sup> See *supra* text accompanying note 156.

<sup>251</sup> See 7 EARL W. KINTNER & WILLIAM P. KRATZKE, FEDERAL ANTITRUST LAW § 48.22 (1988).

<sup>252</sup> See *id.*

<sup>253</sup> EARL W. KINTNER, AN ANTITRUST PRIMER: A GUIDE TO ANTITRUST AND TRADE REGULATION LAWS FOR BUSINESSMEN 23 (2d ed. 1973).

<sup>254</sup> See 15 U.S.C. §§ 1-2, 15 (1988); see also KINTNER, *supra* note 253, at 151 (noting that § 4 of the Clayton Act provides recovery of treble damages for a person bringing suit under §§ 1 and 2 of the Sherman Act).

<sup>255</sup> KINTNER, *supra* note 253, at 24.

<sup>256</sup> 6 AREEDA, *supra* note 54, ¶ 1436(c), at 243.

<sup>257</sup> See *id.* (noting that "no one is to blame" for the adoption of some facilitating practices).

<sup>258</sup> 168 F.2d 175 (7th Cir. 1948), *aff'd per curiam by an equally divided court sub nom.* Clayton Mark & Co. v. FTC, 336 U.S. 956 (1949).

<sup>259</sup> See Rigid Steel Conduit Ass'n, 38 F.T.C. 534, 593-96 (1944).

its claim that mere conscious parallelism violated section 5 of the FTC Act.<sup>260</sup> *Triangle Conduit* and cases that followed suggested that section 5 did not require the evidence of agreement demanded by the Sherman Act.<sup>261</sup>

## 2. The *du Pont* Litigation

Buoyed by its previous successes, in 1979 the Federal Trade Commission launched an investigation of manufacturers of lead-based antiknock gasoline additives in an effort to determine whether prices were at supracompetitive levels.<sup>262</sup> The industry appeared to present a good environment for collusion,<sup>263</sup> and the FTC suspected that various practices were in fact being used to facilitate tacit collusion.<sup>264</sup> In particular, the FTC noted the parallel use of delivered pricing, MFNs, contracts requiring thirty days advance notice of price changes, and press releases announcing price changes.<sup>265</sup> The FTC did not charge that the defendants had any agreement to raise prices; instead, the Commission claimed that the previously listed practices “‘individually and in combination had the effect of reducing uncertainty about competitors’ prices of lead-based antiknock compounds,’ and that such reduced uncertainty ‘unfairly facilitated the maintenance of substantial, uniform price levels and the reduction or elimination of price competition.’”<sup>266</sup>

Though the FTC prevailed before an administrative law judge, who enjoined the questionable practices,<sup>267</sup> the defendants won on appeal.<sup>268</sup> The decision handed down by the Second Circuit,

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<sup>260</sup> See *Triangle Conduit*, 168 F.2d at 181; see also 6 AREEDA, *supra* note 54, ¶ 1436(c), at 244 n.15 (citing an FTC internal memo that declared parallel adoption of basing point pricing schemes illegal).

<sup>261</sup> See 6 AREEDA, *supra* note 54, ¶ 1436(c) (noting that § 5 does not contain a conspiracy requirement).

<sup>262</sup> See *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128, 133 (2d Cir. 1984).

<sup>263</sup> The industry was highly concentrated; in fact, it was comprised of only four firms. See *id.* at 130-31. In addition, prices were highly inelastic, the product was homogeneous, and the Environmental Protection Agency’s regulatory changes requiring the use of unleaded gasoline meant that potential entrants would not find investing in plant and equipment worthwhile enough to enter the industry. See *id.* at 131-32.

<sup>264</sup> The fact that two of the firms in the industry, Ethyl and du Pont, earned returns on investment substantially exceeding 150% of the average rate of return for the chemical industry provided circumstantial evidence of collusion. See *id.* at 132.

<sup>265</sup> See *id.* at 133.

<sup>266</sup> *Id.* (quoting the FTC complaint).

<sup>267</sup> See *id.* at 134.

<sup>268</sup> See *id.* at 141-42.

however, has been widely criticized, both because it found for the defendants despite ample evidence of collusive pricing and because of the harsh standard it established for enjoining facilitating practices.<sup>269</sup> In particular, the court stated that, absent evidence of an agreement, conduct must exhibit "some indicia of oppressiveness," such as evidence of anticompetitive intent, or the absence of an independent business reason for the conduct, in order to be prohibited by section 5 of the FTC Act.<sup>270</sup> Clearly, this language echoes the elements associated with meeting the various requirements of sections 1 and 2 of the Sherman Act.<sup>271</sup>

### E. *A Proposal for Reaching LPGs*

As indicated earlier, sections 1 and 2 of the Sherman Act seem incapable of eliminating tacit collusion facilitated by LPGs.<sup>272</sup> The *du Pont* opinion seems to suggest that section 5 of the FTC Act now suffers the same infirmity.<sup>273</sup> Despite the restrictions implied by *du Pont*, however, the FTC Act still provides a practical method of reaching collusion inspired by LPGs.

In fact, section 5 of the FTC Act remains the best weapon for eliminating collusion resulting from facilitating practices. Even after *du Pont*, section 5 still incorporates both the Sherman and Clayton Acts,<sup>274</sup> and offers a method of prohibiting collusive conduct without assigning blame, criminal liability, or inviting suits to recover private damages.<sup>275</sup> In essence, the only significant factor changed by *du Pont* appears to be that in cases where the plaintiff cannot show an agreement among the defendants, the plaintiff must now provide evidence of either anticompetitive intent or the lack of an independent business justification for the facilitating practices.<sup>276</sup>

Given these requirements, there are two approaches that would permit section 5 to reach collusion inspired by LPGs. First, the Simons approach discussed before could be utilized in a modified form. Specifically, the existence of LPGs that are being exercised

<sup>269</sup> See, e.g., 6 AREEDA, *supra* note 54, ¶ 1436 (noting that the court's decision confined the reach of § 5).

<sup>270</sup> *Du Pont*, 729 F.2d at 139.

<sup>271</sup> See *supra* notes 168-86, 234-45 and accompanying text.

<sup>272</sup> See *supra* parts V.B & V.C.

<sup>273</sup> Note that the *du Pont* holding is only binding in the Second Circuit.

<sup>274</sup> See KINTNER, *supra* note 253, at 23.

<sup>275</sup> See 6 AREEDA, *supra* note 54, ¶ 1436(c).

<sup>276</sup> See *supra* text accompanying note 270.

by consumers could be held to constitute vertical agreements satisfying the agreement requirement set forth in *du Pont*. Note that once this requirement is met, the *du Pont* opinion no longer requires the plaintiff to show that the facilitating practices are contrary to the economic self-interest of the actor or that the actor was motivated by a specific intent to collude.<sup>277</sup> Of course this policy does not provide a foolproof method of preventing collusion through LPGs, since LPGs can only be considered legally binding agreements if they are being activated by consumers.<sup>278</sup> This modified Simons approach, however, does correct one of the flaws neglected by Simons. Simons relied on the Sherman Act, which subjected violators to criminal prosecution and treble damages. As a result, actors might have been over-deterred; efficient uses of facilitating practices might have been curtailed as sellers sought to avoid exposure to the large penalties imposed by Sherman Act liability.<sup>279</sup> Modifying the Simons analysis to use the FTC Act, in contrast, avoids any potential for over-deterrence since violators are simply enjoined from engaging in the facilitating practices and are not exposed to huge damage awards or criminal sanctions. Though this approach does not reach collusive equilibria already established by LPGs, it could prevent such outcomes in the first place.

A second method for reaching mechanisms for facilitating tacit collusion with section 5 follows from the majority's opinion in *du Pont*. The opinion was motivated by a desire to prevent the FTC from abusing the power granted to it under section 5.<sup>280</sup> In particular, the court rejected the FTC's standard of applying section 5, which would have prohibited the use of various facilitating practices when their cumulative effect lessened competition.<sup>281</sup> The court's denial was premised on the belief that allowing this vague standard would create great uncertainty among businesses as to which conduct is illegal. The court noted, for example, that many of the practices accused of facilitating tacit collusion were adopted years before the FTC found them illegal.<sup>282</sup> "The tenuousness of the Commission's finding that the challenged practices

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<sup>277</sup> See *supra* note 270 and accompanying text.

<sup>278</sup> See *supra* notes 219-26 and accompanying text. Note, however, that antitrust violations may be found without a legally binding contract. See *supra* note 221.

<sup>279</sup> See *supra* notes 227-28 and accompanying text.

<sup>280</sup> See *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128, 137 (2d Cir. 1984) (citing *FTC v. Sperry & Hutchinson Co.*, 405 U.S. 233, 248 (1972)).

<sup>281</sup> See *id.* at 141.

<sup>282</sup> See *id.* at 140.

are 'unfair' is illustrated by the fact that it does not tell us when the practices became unlawful . . . ."<sup>283</sup> Furthermore, the court rejected the FTC's standard because under it "[c]ertain otherwise-legitimate practices were declared unlawful only when used cumulatively with other practices."<sup>284</sup> For these reasons, the court found that the FTC's standard of application constituted "uncertain guesswork rather than workable rules of law."<sup>285</sup>

While scholars have suggested that the *du Pont* court overestimated the costs imposed on businesses by a vague standard of applying section 5,<sup>286</sup> these costs were very real to the court. This suggests that a standard of applying section 5 that minimizes these costs would be more acceptable. Fortunately, various features of LPGs suggest that they can be regulated in a manner that leaves little uncertainty. First, the independent use of LPGs is more effective at facilitating collusion than several other facilitating practices used in concert.<sup>287</sup> Second, LPGs can be used to inspire collusion in a wide variety of market structures, including competitive markets.<sup>288</sup> Finally, the offsetting benefits associated with LPGs can be provided by other less collusive facilitating practices.<sup>289</sup>

These features suggest that LPGs should be prohibited entirely.<sup>290</sup> Although at first glance a total prohibition on LPGs might seem harsh, in reality, firms would retain wide latitude in adopting pricing policies. In particular, since this Comment defines "low-price guarantee" to include only those pricing policies that refund more than 100% of price differences,<sup>291</sup> even a total prohibition of LPGs would not prevent firms from offering both meeting-the-competition clauses and most-favored-nation clauses. As a result, although sellers could no longer promise to refund 110% of the

<sup>283</sup> *Id.*

<sup>284</sup> *Id.* at 139.

<sup>285</sup> *Id.*

<sup>286</sup> See 6 AREEDA, *supra* note 54, ¶ 1436(c). The court's concern seems particularly overdrawn because *du Pont* involved the FTC Act and not the Sherman Act. At worst, the defendants could have been enjoined from continuing the facilitating practices; monetary damages and criminal sanctions were never an issue.

<sup>287</sup> See *supra* notes 118-21 and accompanying text.

<sup>288</sup> See *supra* note 142 and accompanying text.

<sup>289</sup> See *supra* part III.C.

<sup>290</sup> This Comment does not address whether the FTC could ban LPGs under its rulemaking power pursuant to § 5 of the FTC Act or if new legislation would be needed to accomplish this task.

<sup>291</sup> See *supra* part I.A.

difference between their price and the prices charged by their competitors, each seller could guarantee buyers that they are being charged a price no higher than the lowest price charged to any other customer. Furthermore, each seller could promise to match any lower price posted by its rivals. Though such MCCs and MFNs may have anticompetitive effects,<sup>292</sup> these pricing policies are less likely to lead to supracompetitive prices than are LPGs.<sup>293</sup> In addition, allowing MCCs and MFNs ensures that the efficiency-enhancing aspects of these policies are still available to the marketplace.<sup>294</sup>

While a total prohibition of LPGs would not be very onerous, the anticompetitive potential of LPGs could be limited by more narrow means. Specifically, recall that the collusive potential of LPGs is greatest in industries with certain features.<sup>295</sup> Therefore, the FTC could monitor the use of LPGs and only challenge applications in industries with these features. As long as the FTC clearly specifies the conditions under which LPGs will be held in violation of section 5, the cost to businesses created by legal uncertainty should be kept to the minimal level demanded by the majority in *du Pont*.

So, although the *du Pont* opinion certainly complicates efforts to stop collusion through facilitating practices, the collusive impact of LPGs could be minimized under either of two approaches using section 5 of the FTC Act. The first relies on a modified version of the Simons theory that vertical contracts can satisfy the agreement requirement. The second approach attempts to address the *du Pont* majority's concern for costs generated by legal uncertainty. Although neither of these methods provides an ideal solution for preventing anticompetitive uses of LPGs, they are superior to any attempt to reach LPGs through the Sherman Act.

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<sup>292</sup> See *supra* notes 62-78 and accompanying text.

<sup>293</sup> See *supra* part IV.B.2.

<sup>294</sup> See *supra* part III.C (detailing the offsetting efficiencies provided by interdependent pricing policies).

<sup>295</sup> See *supra* part IV.C.2 (noting that the collusive potential of LPGs is greatest in industries with inelastic demand, price flexibility, frequent sales transactions, widespread use of advertising, one or more well-capitalized firms, economies of scale, and the ability to prevent vertical dissipation of profits).

## CONCLUSION

While competitive markets maximize consumer welfare, the positive economic profits associated with successful collusion create a strong incentive for firms to form cartels. Any cartel, however, must overcome several very difficult tasks to succeed. The adoption of various facilitating practices, however, can simplify these tasks. In particular, the institution of a low-price guarantee by a single firm in even a competitive industry can set in motion a chain of events that raises prices and profits to supracompetitive levels. Furthermore, the collusive equilibrium established by a low-price guarantee can continue to exist even in the long term, since it fixes the market size, forcing potential entrants to steal market share from existing firms. While collusive uses of LPGs are difficult to prohibit under current antitrust laws, two methods of applying section 5 of the FTC Act can be utilized to curtail or prevent any anticompetitive impact. In the meantime, courts, scholars, and policy makers should continue to scrutinize innovative pricing policies like LPGs which might have anticompetitive implications.